

09/728, C16

Welcome to STN International! Enter x:x

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PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *

SESSION RESUMED IN FILE 'REGISTRY' AT 17:29:12 ON 05 FEB 2004

FILE 'REGISTRY' ENTERED AT 17:29:12 ON 05 FEB 2004

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	3.36	3.57

=>

Uploading C:\Program Files\Stnexp\Queries\09728616a.str

=>

Uploading C:\Program Files\Stnexp\Queries\09728616b.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.

=> s l1 exact sam

STRUCTURES CONTAINING VARIABLE NODES NOT VALID IN EXACT OR FAMILY SEARCH
You have requested a full structure (EXA or FAM) search on a
structure containing one of the special variable-atom symbols
A, M, Q, or X, or a variable group G. Only bond variability
is allowed in structures for EXA or FAM searches. Variable
nodes are never permitted.

=> s l1 fam sam

STRUCTURES CONTAINING VARIABLE NODES NOT VALID IN EXACT OR FAMILY SEARCH
You have requested a full structure (EXA or FAM) search on a
structure containing one of the special variable-atom symbols
A, M, Q, or X, or a variable group G. Only bond variability
is allowed in structures for EXA or FAM searches. Variable
nodes are never permitted.

=> s l1 substructure sam

COMBINATION OF STRUCTURE AND TEXT TERMS NOT VALID

The query entered contains both search terms created by
structure-building or screen commands and text search terms. L#s
created via the STRUCTURE or SCREEN commands must be searched in the
structures files separately from text terms or profiles. The L#
answer sets from structure searches can be used in crossover searches
and can be combined with text terms.

=> s l1 sub sam

ENTER SUBSET L# OR (END) :l1

L1 MAY NOT BE USED HERE

10/05/05

The L-number must have been created by a search in this file. To see all L-numbers defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>). For additional information on subset searching in this file, enter HELP SUBSET.

ENTER SUBSET L# OR (END) :end
SEARCH ENDED BY USER

=> s 11 sam
SAMPLE SEARCH INITIATED 17:34:00 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 15 TO ITERATE

100.0% PROCESSED 15 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

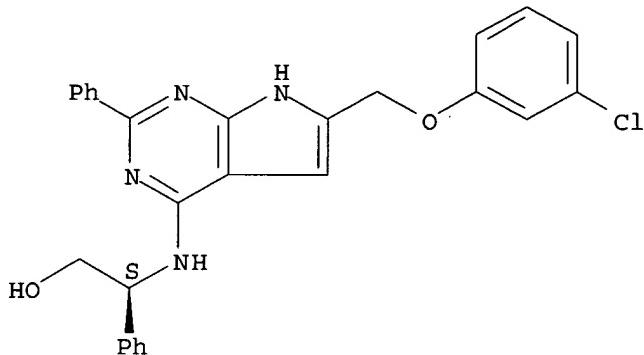
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 68 TO 532
PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> d scan str

L2 1 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

Absolute stereochemistry.



ALL ANSWERS HAVE BEEN SCANNED

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
CONNECT CHARGES	6.84	6.99
NETWORK CHARGES	1.14	1.20
FULL ESTIMATED COST	7.98	8.19

IN FILE 'REGISTRY' AT 17:35:31 ON 05 FEB 2004

=> d his

(FILE 'HOME' ENTERED AT 17:23:02 ON 05 FEB 2004)

10/035753

FILE 'REGISTRY' ENTERED AT 17:23:32 ON 05 FEB 2004
L1 STRUCTURE uploaded
L2 1 S L1 SAM

=> s l1 full
FULL SEARCH INITIATED 17:36:52 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 365 TO ITERATE

100.0% PROCESSED 365 ITERATIONS 47 ANSWERS
SEARCH TIME: 00.00.01

L3 47 SEA SSS FUL L1

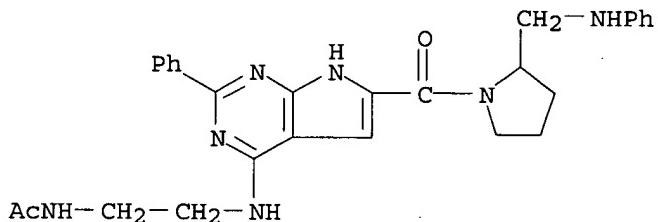
=> d cost
COST IN U.S. DOLLARS SINCE FILE TOTAL
CONNECT CHARGES ENTRY SESSION
NETWORK CHARGES 7.56 7.71
SEARCH CHARGES 1.26 1.32
155.00 155.00

FULL ESTIMATED COST 163.82 164.03

IN FILE 'REGISTRY' AT 17:37:00 ON 05 FEB 2004

=> d stf

L3 ANSWER 1 OF 47 REGISTRY COPYRIGHT 2004 ACS on STN



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

=> d his

(FILE 'HOME' ENTERED AT 17:23:02 ON 05 FEB 2004)

FILE 'REGISTRY' ENTERED AT 17:23:32 ON 05 FEB 2004
L1 STRUCTURE uploaded
L2 1 S L1 SAM
L3 47 S L1 FULL

=> file caplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
FULL ESTIMATED COST ENTRY SESSION
166.79 167.00

10/035753

FILE 'CAPLUS' ENTERED AT 17:39:55 ON 05 FEB 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 5 Feb 2004 VOL 140 ISS 6
FILE LAST UPDATED: 4 Feb 2004 (20040204/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13
L4 11 L3

=> d fbib abs hitstr total

L4 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:570644 CAPLUS
DN 139:133575
TI Preparation of bicyclic pyrimidinyl derivatives as adenosine receptor ligands
IN Castelhano, Arlindo L.; McKibben, Bryan
PA OSI Pharmaceuticals Inc., USA
SO U.S. Pat. Appl. Publ., 105 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 2003139427	A1	20030724	US 2002-227378	20020823
OS MARPAT 139:133575			US 2002-227378	20020823

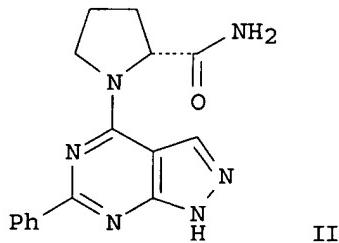
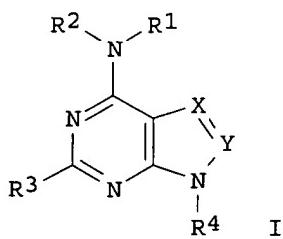
GI

Bad Date

Printing claims

to look for

Double Pat.



AB Title compds. I [Y = N, CR5 and X = N, CR6 wherein X, Y are both N or when

10/035753

$Y = CR_5$, $X = N$ or when $X = CR_6$, $Y = N$; $R_{1-2} = H$, alkoxy, aminoalkyl, etc; $R_{3-4} = H$, alkyl, aryl, alkylaryl] are prepared. For instance, 3-amino-4-carbamoylpyrazole is acylated with benzoyl chloride (Pyridine, 50°, 5-6 h), cyclized to the corresponding pyrazolopyrimidine (water, K_2CO_3 , 100°, 16 h), converted to the chloride ($POCl_3$, 106°, 2 h) and used for reactions with various amines to give the example compds., e.g., II. II has $K_i = 76.7$ nM for the adenosine A1 receptor, $K_i = 242.7$ nM for A2a and $K_i = 1480.5$ nM for A2b. I are useful for the treatment of.

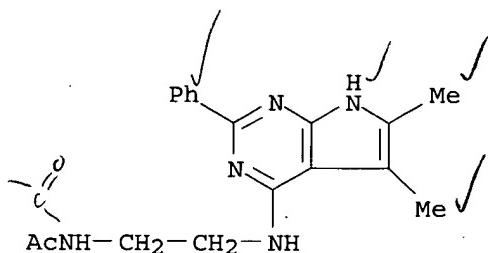
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 251946-37-9P 251946-38-0P 251946-39-1P
 251946-40-4P 251946-41-5P 251946-45-9P
 251946-46-0P 343632-20-2P 343632-31-5P
 343632-32-6P 343632-33-7P 343632-35-9P
 343632-36-0P 343632-37-1P 343632-38-2P
 343632-39-3P 343632-40-6P 343632-41-7P
 343632-43-9P 343632-44-0P 343632-45-1P
 343632-46-2P 343969-97-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of bicyclic pyrazolo-imidazo- and triazolopyrimidinyl derivs. as adenosine receptor ligands)

RN 246855-42-5 CAPLUS

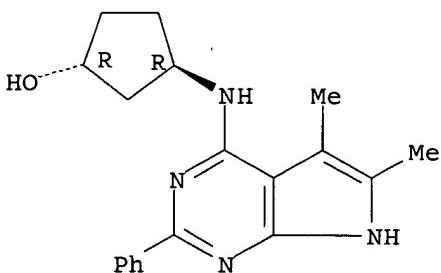
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



RN 251946-07-3 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3R)-rel- (9CI) (CA INDEX NAME)

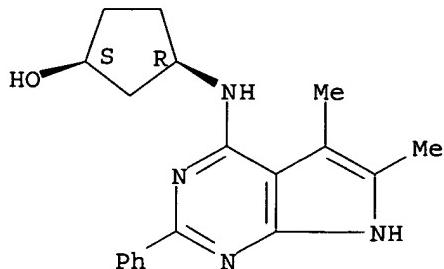
Relative stereochemistry.



RN 251946-08-4 CAPLUS

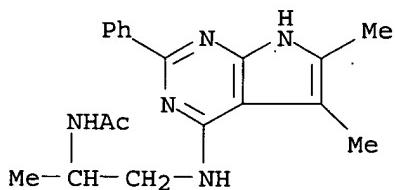
CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 251946-37-9 CAPLUS

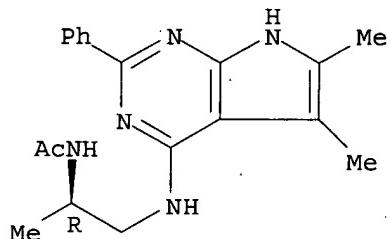
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)



RN 251946-38-0 CAPLUS

CN Acetamide, N-[(1R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

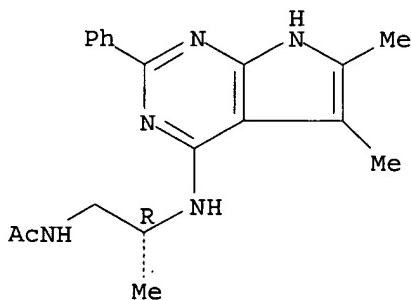
Absolute stereochemistry.



RN 251946-39-1 CAPLUS

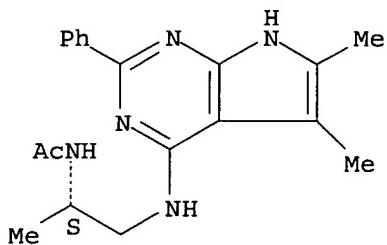
CN Acetamide, N-[(2R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



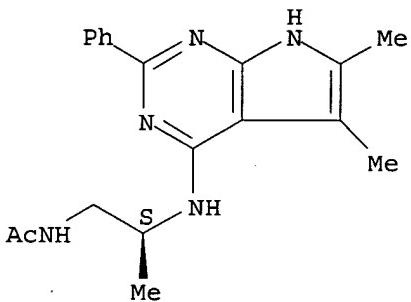
RN 251946-40-4 CAPLUS
CN Acetamide, N-[(1S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

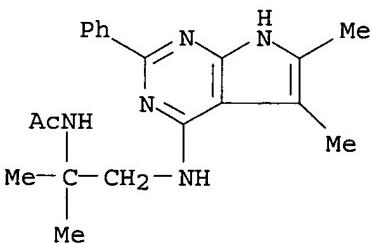


RN 251946-41-5 CAPLUS
CN Acetamide, N-[(2S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

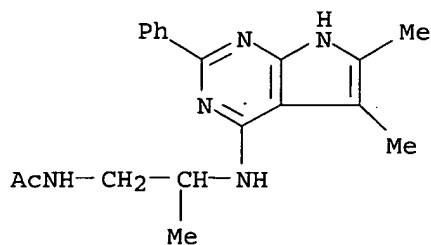
Absolute stereochemistry.



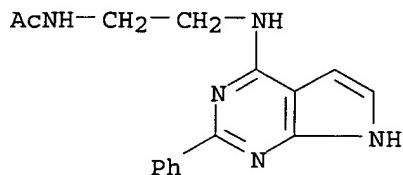
RN 251946-45-9 CAPLUS
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1,1-dimethylethyl]- (9CI) (CA INDEX NAME)



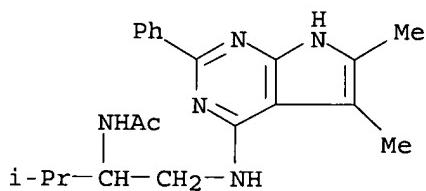
RN 251946-46-0 CAPLUS
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)



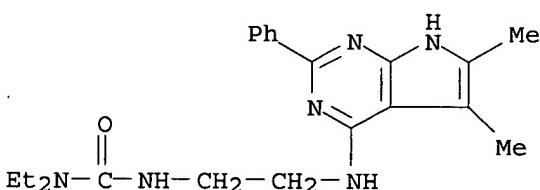
RN 343632-20-2 CAPLUS
 CN Acetamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



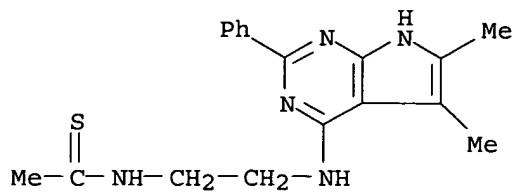
RN 343632-31-5 CAPLUS
 CN Acetamide, N-[1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]-2-methylpropyl]- (9CI) (CA INDEX NAME)



RN 343632-32-6 CAPLUS
 CN Urea, N'-(2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl)-N,N-diethyl- (9CI) (CA INDEX NAME)

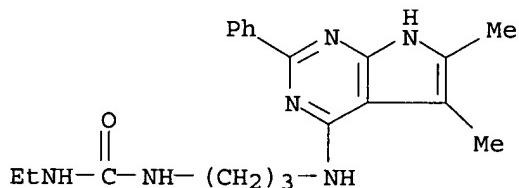


RN 343632-33-7 CAPLUS
 CN Ethanethioamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



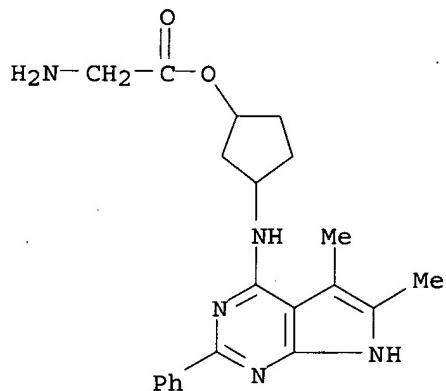
RN 343632-35-9 CAPLUS

CN Urea, N-[3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]-N'-ethyl- (9CI) (CA INDEX NAME)



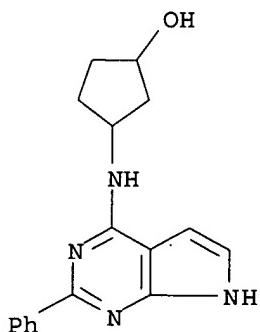
RN 343632-36-0 CAPLUS

CN Glycine, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester (9CI) (CA INDEX NAME)



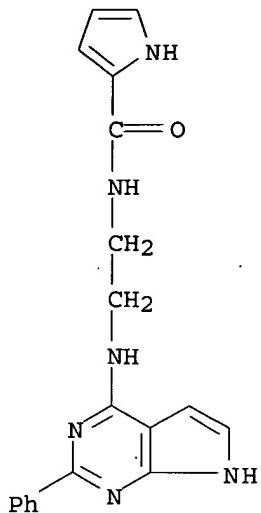
RN 343632-37-1 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]- (9CI) (CA INDEX NAME)

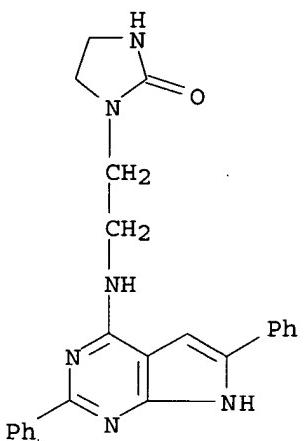


10/035753

RN 343632-38-2 CAPLUS
CN 1H-Pyrrole-2-carboxamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)

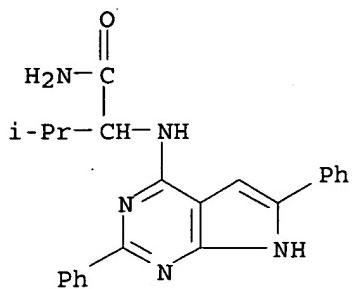


RN 343632-39-3 CAPLUS
CN 2-Imidazolidinone, 1-[2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



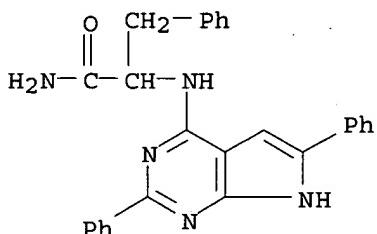
RN 343632-40-6 CAPLUS
CN Butanamide, 2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-3-methyl- (9CI) (CA INDEX NAME)

10/035753



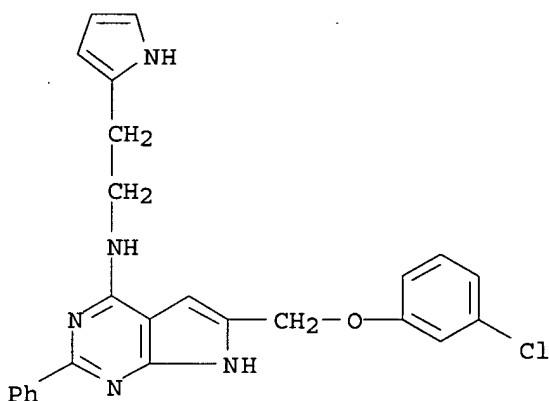
RN 343632-41-7 CAPLUS

CN Benzenepropanamide, α -[(2,6-diphenyl-1*H*-pyrrolo[2,3-d]pyrimidin-4-yl)amino]- (9CI) (CA INDEX NAME)



RN 343632-43-9 CAPLUS

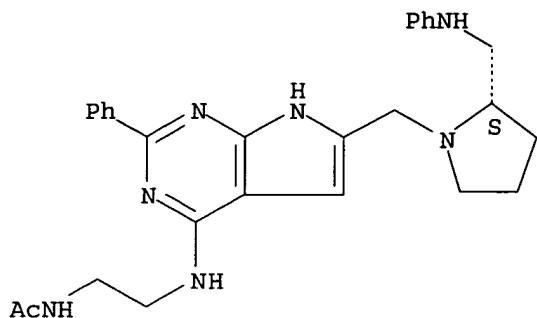
CN 1*H*-Pyrrolo[2,3-d]pyrimidin-4-amine, 6-[(3-chlorophenoxy)methyl]-2-phenyl-N-[2-(1*H*-pyrrol-2-yl)ethyl]- (9CI) (CA INDEX NAME)



RN 343632-44-0 CAPLUS

CN Acetamide, N-[2-[(2S)-2-[(phenylamino)methyl]-1-pyrrolidinyl]methyl]-1*H*-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl]- (9CI) (CA INDEX NAME)

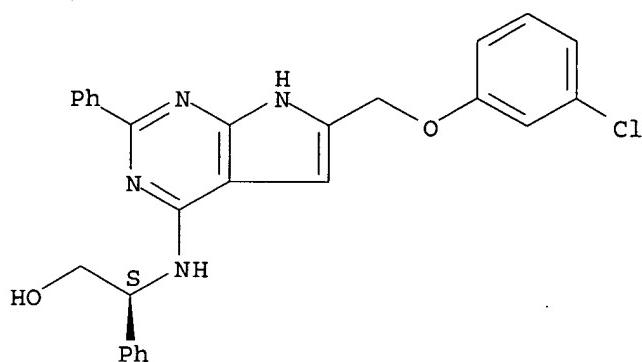
Absolute stereochemistry.



RN 343632-45-1 CAPLUS

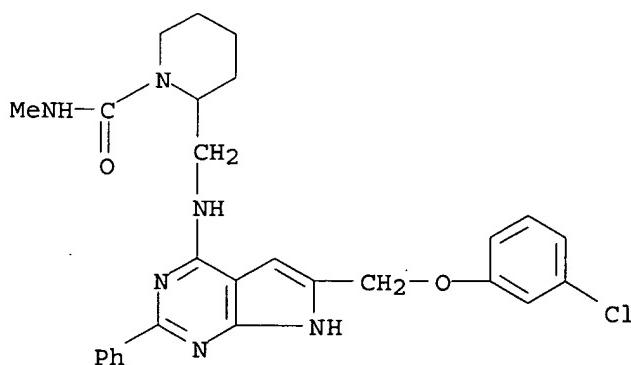
CN Benzeneethanol, β -[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]-, (β S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-46-2 CAPLUS

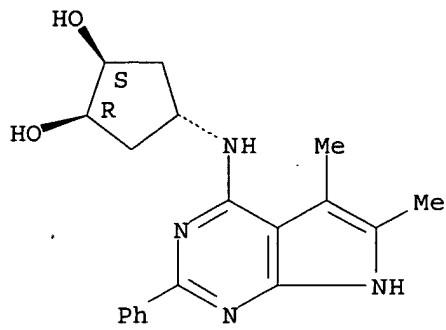
CN 1-Piperidinecarboxamide, 2-[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl-N-methyl- (9CI) (CA INDEX NAME)



RN 343969-97-1 CAPLUS

CN 1,2-Cyclopentanediol, 4-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1 α ,2 α ,4 β)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



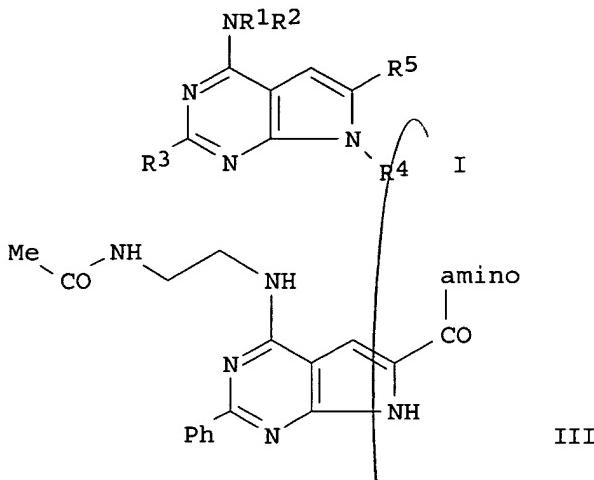
L4 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:511094 CAPLUS
 DN 139:85365
 TI Preparation of pyrrolopyrimidine A2b selective antagonist compounds,
 method of synthesis and therapeutic use
 IN Castelhano, Arlindo L.; McKibben, Bryan; Steinig, Arno G.
 PA Qsi Pharmaceuticals, Inc., USA
 SO PCT Int. Appl., 223 pp.
 CODEN: PIXXD2

Blue Dark

DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003053361	A2	20030703	WO 2002-US40890	20021220
	WO 2003053361	A3	20031224		
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	US 2003229067	A1	20031211	US 2001-343443PP	20011220
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				US 2001-343443PP	20011220
OS	CASREACT 139:85365; MARPAT 139:85365				
GI					

Blue Dark



AB The subject invention provides pyrrolopyrimidines (shown as I; see below for variable definitions; e.g. N-[2-[6-[1-[2-(2-chlorophenyl)ethyl]piperidin-4-yloxyethyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-ylamino]ethyl]acetamide (II)) or a specific enantiomer thereof, or a specific tautomer thereof, or a pharmaceutically acceptable salt thereof, and a method for treating a disease associated with the A2b adenosine receptor. For I: R1 is a (un)substituted alkyl (substituent = hydroxyl, dihydroxy, carboxyl, -C(O)NRaRb, -NRaRb, -NRaC(O)NRaRb, -NRaC(O)ORa, -OC(O)NRaRb, or -NHC(O)Ra). R2 is H or a (un)substituted alkyl (substituent = hydroxyl, dihydroxyl, carboxyl, -C(O)NRaRb, -NRaRb, -NRaC(O)NRaRb, -NRaC(O)ORa, -OC(O)NRaRb, or -NHC(O)Ra), or R1, R2 and N together form a substituted piperazine, substituted azetidine, or a pyrrolidine ring substituted with -(CH₂)₂OH or -CH₂C(O)OH. R3 is a (un)substituted Ph or a 5-6 membered heteroaryl ring, wherein the substituent is halogen, hydroxyl, cyano, (C₁-C₁₅)alkyl, (C₁-C₁₅)alkoxyl or -NRaRb; R4 is H or (un)substituted (C₁-C₁₅)alkyl; R5 is -(CH₂)_mOR₆, -CHNOR₇, -C(O)NR₈R₉, -(CH₂)_mC(O)OR₁₀, -(CH₂)_kC(O)NR₁₁R₁₂; addnl. details are given in the claims. Radioligand binding assays yielded selectivities for the A2b receptor relative to the A₁, A_{2a} and A₃ receptors for 9 examples of I, e.g. 26 times for II. About 26 example preps. of I and intermediates and characterization data for hundreds of I and intermediates are included. For example, III can be prepared by reacting 4-chloro-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine with PhSO₂Cl and a reducing agent in the presence of solvent to produce 7-benzenesulfonyl-4-chloro-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine, which was reacted with CO₂ in the presence of LDA and a solvent to produce lithium 7-benzenesulfonyl-4-chloro-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine-6-carboxylate, which was reacted with AcNHCH₂CH₂NH₂ in the presence of solvent to give 4-(2-acetylaminooethylamino)-7-benzenesulfonyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine-6-carboxylic acid, which was deprotected with a hydroxide base and subsequently condensed with amines.

IT 343632-45-1P, (S)-2-[[6-(3-Chlorophenoxyethyl)-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]-2-phenylethanol 343632-46-2P, 2-[[6-(3-Chlorophenoxyethyl)-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl)piperidine-1-carboxylic acid methylamide 343632-81-5P, (R)-2-[[6-(3-Chlorophenoxyethyl)-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]-2-phenylethanol 553631-99-5P, N-[2-[[6-(3-Chlorophenoxyethyl)-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl]acetamide 553632-26-1P, N-[2-[(3-Chlorophenoxyethyl)-5-[(dimethylamino)methyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl]acetamide 553634-62-1P, N-[2-[(2-Phenyl-6-((S)-2-[(phenylamino)methyl]pyrrolidine-1-carbonyl)-7H-

pyrrolo[2,3-d]pyrimidin-4-yl]aminoethyl]acetamide

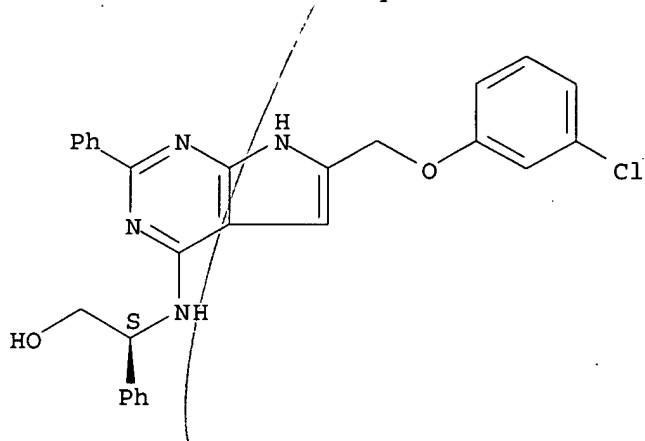
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of pyrrolopyrimidine A2b selective antagonist compds., method of synthesis and therapeutic use)

RN 343632-45-1 CAPLUS

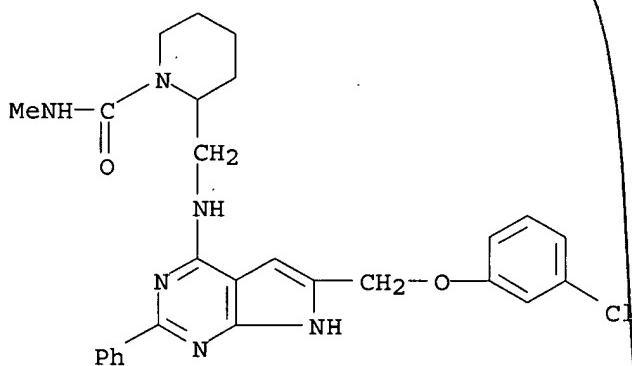
CN Benzeneethanol, β -[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]-, (β S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-46-2 CAPLUS

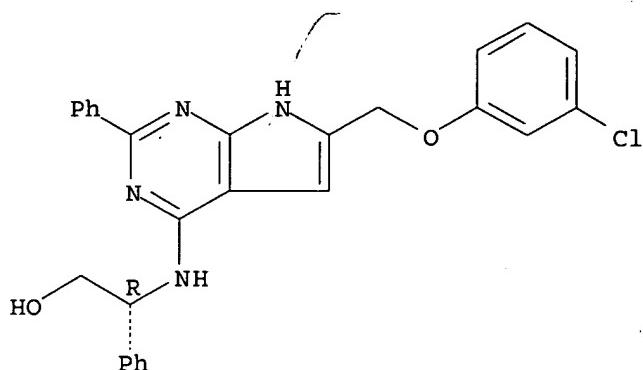
CN 1-Piperidinecarboxamide, 2-[[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 343632-81-5 CAPLUS

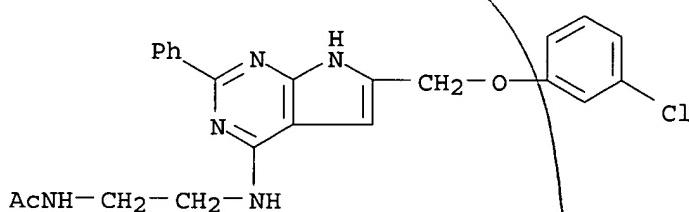
CN Benzeneethanol, β -[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]-, (β R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



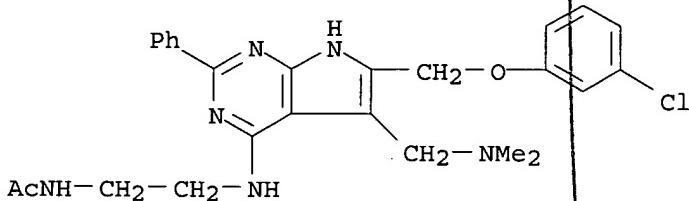
RN 553631-99-5 CAPLUS

CN Acetamide, N-[2-[(6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl] - (9CI) (CA INDEX NAME)



RN 553632-26-1 CAPLUS

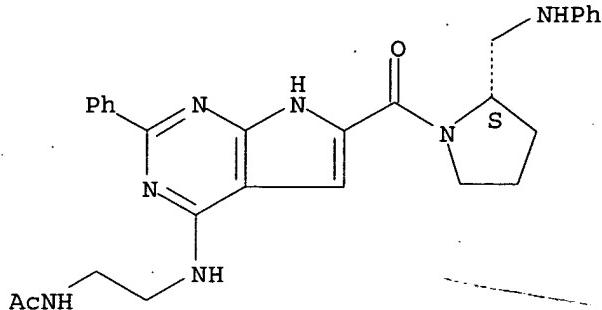
CN Acetamide, N-[2-[(6-[(3-chlorophenoxy)methyl]-5-[(dimethylamino)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl] - (9CI) (CA INDEX NAME)



RN 553634-62-1 CAPLUS

CN Acetamide, N-[2-[(2-phenyl-6-[(2S)-2-[(phenylamino)methyl]-1-pyrrolidinyl]carbonyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl] - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

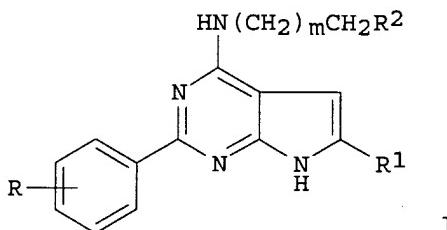


L4 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:454286 CAPLUS
 DN 139:36534
 TI Preparation of arylpyrrolopyrimidines as adenosine A₁ and A₃ receptor inhibitors
 IN Castelhano, Arlindo L.; McKibben, Bryan; Werner, Douglas S.; Witter, David
 PA OSI Pharmaceuticals, Inc., USA
 SO PCT Int. Appl., 170 pp.
 CODEN: PIKXD2
 DT Patent
 LA English
 FAN.CNT 1

Bud date

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003048120	A2	20030612	WO 2002-US38055	20021127
	WO 2003048120	A3	20030904		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
				US 2001-335273PP	20011130
				US 2001-337274PP	20011130

OS MARPAT 139:36534
 GI



AB Arylpurrolopyrimidines I [$m = 0-3$; R = halogen, alkyl, alkoxy, OH, NH₂, alkylamino; R₁ = H, (un)substituted alkyl, aryl, aralkyl; R₂ = (un)substituted imidazole, pyrazole, attached through C] which

specifically inhibit the adenosine A₁ and A₃ receptors were prepared. Thus, 4-chloro-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine was treated with histamine to give the 4-[2-(1H-imidazol-2-yl)ethyl]amino analog which had A₃ inhibiting activity ≥ 10 times greater than that of reference compds.

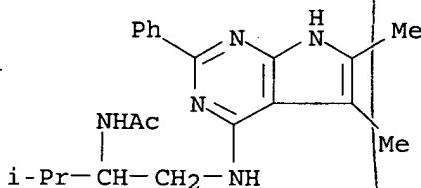
IT 343632-31-5P 343632-32-6P 343632-33-7P
 343632-35-9P 343632-36-0P 343632-37-1P
 343632-38-2P 343632-39-3P 343632-43-9P
 343632-44-0P 343632-45-1P 343632-46-2P
 541504-10-3P 541504-12-5P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of arylpyrrolopyrimidines as adenosine A₁ and A₃ receptor inhibitors)

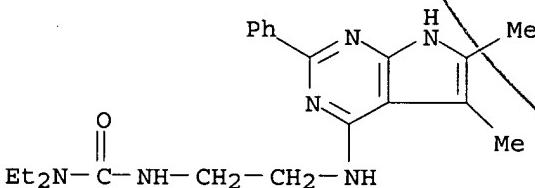
RN 343632-31-5 CAPLUS

CN Acetamide, N-[1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]-2-methylpropyl- (9CI) (CA INDEX NAME)



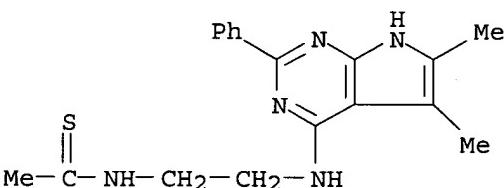
RN 343632-32-6 CAPLUS

CN Urea, N'-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



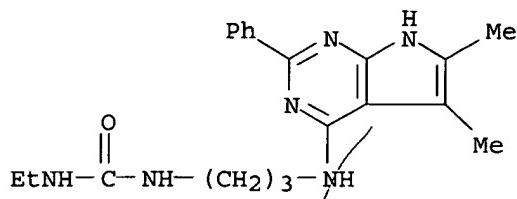
RN 343632-33-7 CAPLUS

CN Ethanethioamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)

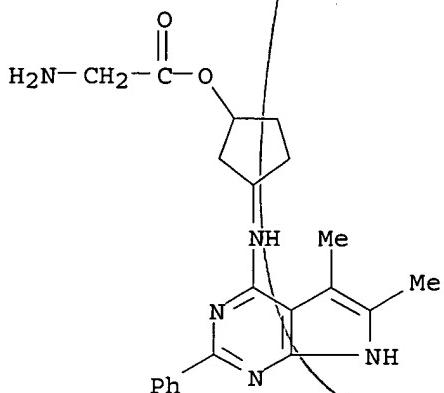


RN 343632-35-9 CAPLUS

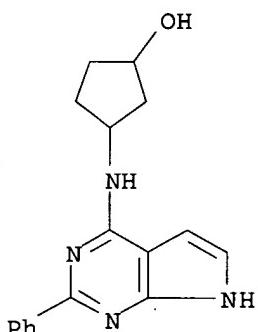
CN Urea, N-[3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]-N'-ethyl- (9CI) (CA INDEX NAME)



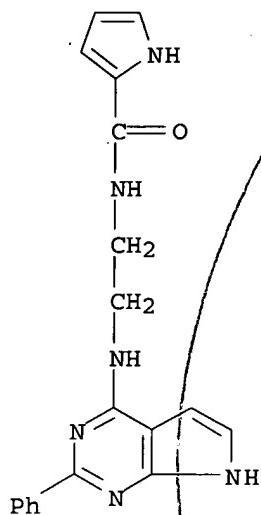
RN 343632-36-0 CAPLUS
 CN Glycine, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester (9CI) (CA INDEX NAME)



RN 343632-37-1 CAPLUS
 CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]- (9CI) (CA INDEX NAME)

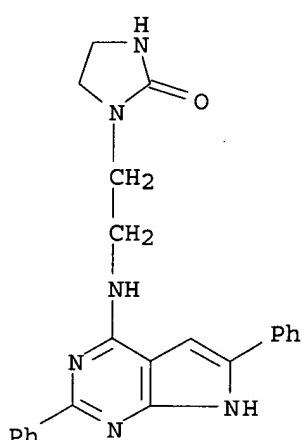


RN 343632-38-2 CAPLUS
 CN 1H-Pyrrole-2-carboxamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



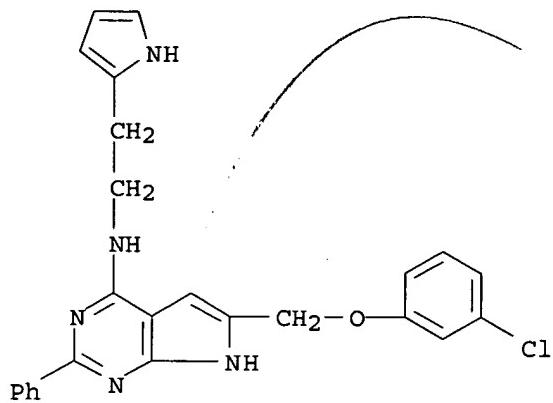
RN 343632-39-3 CAPLUS

CN 2-Imidazolidinone, 1-[2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



RN 343632-43-9 CAPLUS

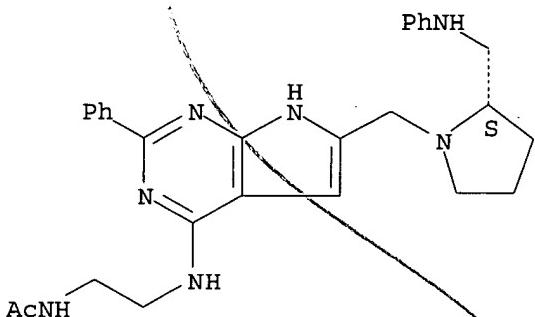
CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 6-[(3-chlorophenoxy)methyl]-2-phenyl-N-[2-(1H-pyrrol-2-yl)ethyl]- (9CI) (CA INDEX NAME)



RN 343632-44-0 CAPLUS

CN Acetamide, N-[2-[(2-phenyl-6-[(2S)-2-[(phenylamino)methyl]-1-pyrrolidinyl]methyl]-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl] - (9CI) (CA INDEX NAME)

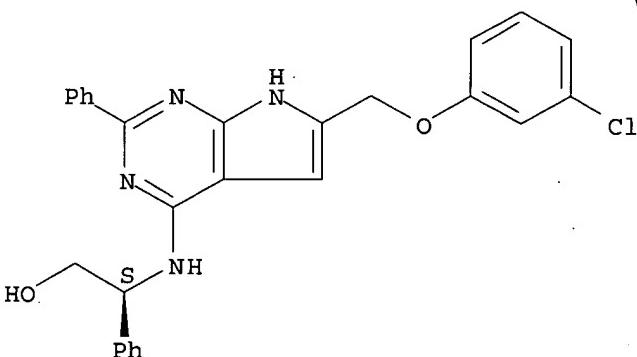
Absolute stereochemistry.



RN 343632-45-1 CAPLUS

CN Benzeneethanol, β-[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino] -, (βS) - (9CI) (CA INDEX NAME)

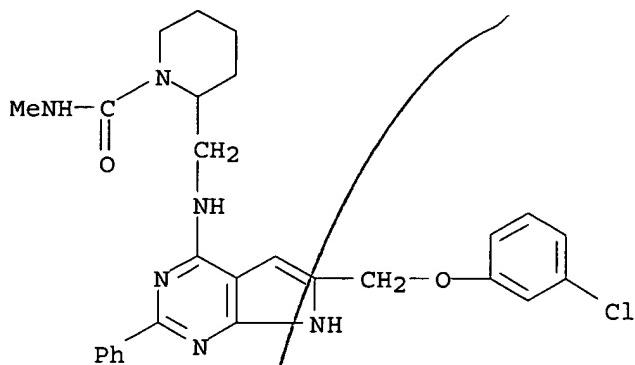
Absolute stereochemistry.



RN 343632-46-2 CAPLUS

CN 1-Piperidinecarboxamide, 2-[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl]-N-methyl- (9CI) (CA INDEX NAME)

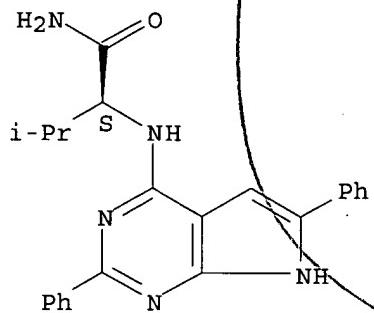
10/035753



RN 541504-10-3 CAPLUS

CN Butanamide, 2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-3-methyl-, (2S)- (9CI) (CA INDEX NAME)

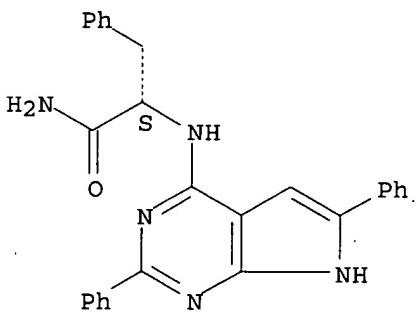
Absolute stereochemistry.



RN 541504-12-5 CAPLUS

CN Benzenepropanamide, α -[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (α S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:300617 CAPLUS

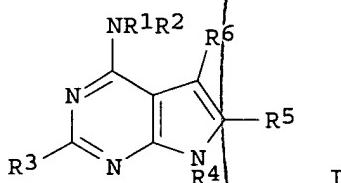
DN 138:321287

TI Preparation of deazapurines as adenosine A₃ receptor antagonists.

IN Castelhano, Arlindo L.; McKibben, Bryan; Witter, David J.

PA OSI Pharmaceuticals, Inc., USA
 SO U.S. Pat. Appl. Publ., 77 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003073708 US 6673802	A1 B2	20030417 20040106	US 2001-6405	20011130
OS	MARPAT 138:321287			US 2000-250748PP	20001201
GI					



AB Title compds. [I; R1, R2 = H, (substituted) alkyl, aryl, aralkyl; R1R2 = atoms to form (substituted) heterocyclyl; R3 = (substituted) alkyl, aryl, aralkyl; R4 = H, (substituted) alkyl, aryl, aralkyl; R5, R6 = H, halo, (substituted) alkyl, aryl, alkylaryl; R4R5 or R5R6 = (substituted) heterocyclyl, carbocyclyl], were prepared. Thus, 2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-ylamine and histamine were heated at 120° in Me₂SO for 6.5 h to give 43% [2-(3H-imidazol-4-yl)ethyl] [2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]amine. The latter had 10 times the A₃ receptor binding affinity of a reference compound

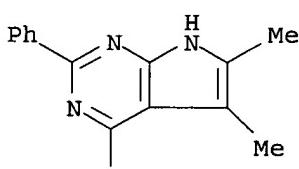
IT 246855-42-5P 251946-07-3P 251946-08-4P
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 251946-45-9P 251946-46-0P 251946-55-1P
 343632-31-5P 343632-32-6P 343632-35-9P
 343632-37-1P 343632-38-2P 343632-39-3P
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 343632-44-0P 343632-45-1P 343632-46-2P
 500736-03-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of deazapurines as adenosine A₃ receptor antagonists)

RN 246855-42-5 CAPLUS

CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)

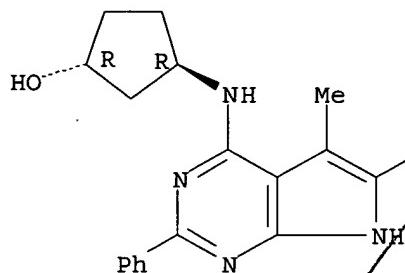


AcNH-CH₂-CH₂-NH

RN 251946-07-3 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3R)-rel- (9CI) (CA INDEX NAME)

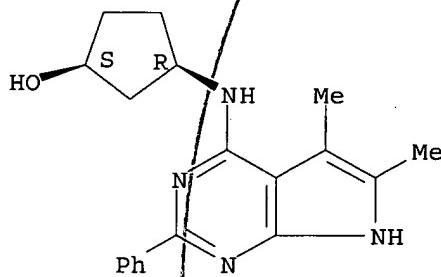
Relative stereochemistry.



RN 251946-08-4 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S)-rel- (9CI) (CA INDEX NAME)

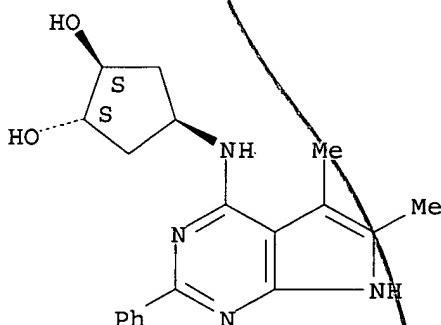
Relative stereochemistry.



RN 251946-09-5 CAPLUS

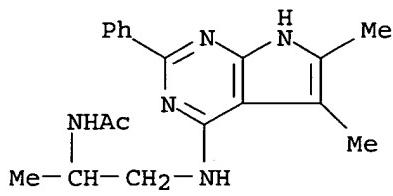
CN 1,2-Cyclopentanediol, 4-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, stereoisomer (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 251946-37-9 CAPLUS

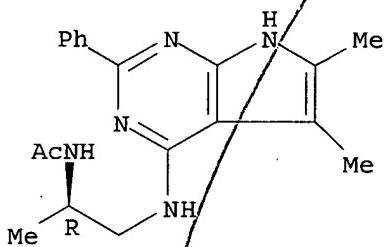
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)



RN 251946-38-0 CAPLUS

CN Acetamide, N-[(1R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

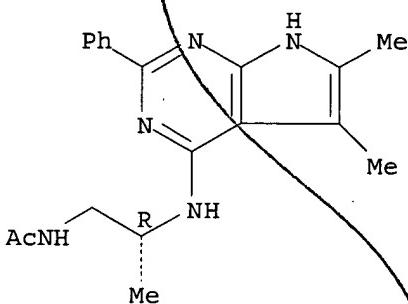
Absolute stereochemistry.



RN 251946-39-1 CAPLUS

CN Acetamide, N-[(2R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

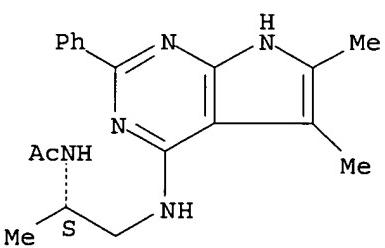
Absolute stereochemistry.



RN 251946-40-4 CAPLUS

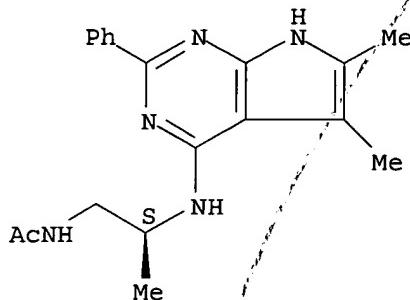
CN Acetamide, N-[(1S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

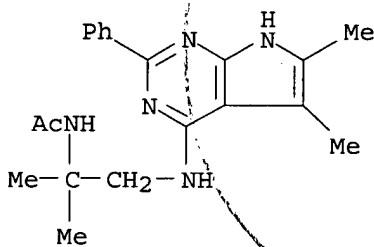


RN 251946-41-5 CAPLUS
CN Acetamide, N-[(2S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

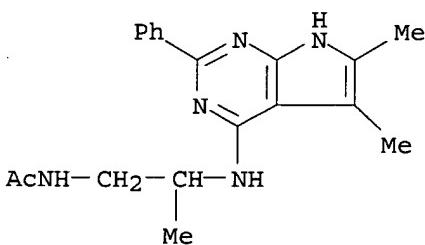
Absolute stereochemistry.



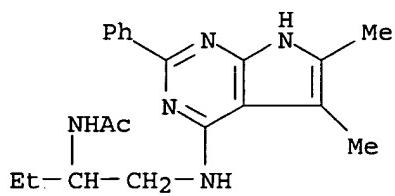
RN 251946-45-9 CAPLUS
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1,1-dimethylethyl]- (9CI) (CA INDEX NAME)



RN 251946-46-0 CAPLUS
CN Acetamide, N-[(2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl)- (9CI) (CA INDEX NAME)

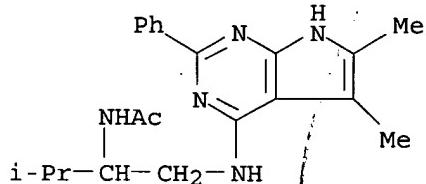


RN 251946-55-1 CAPLUS
CN Acetamide, N-[(1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl)propyl]- (9CI) (CA INDEX NAME)



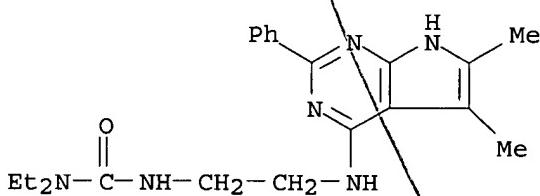
RN 343632-31-5 CAPLUS

CN Acetamide, N-[1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]-2-methylpropyl- (9CI) (CA INDEX NAME)



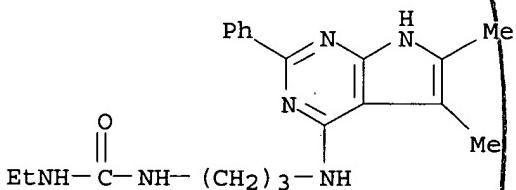
RN 343632-32-6 CAPLUS

CN Urea, N'-(2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl)-N,N-diethyl- (9CI) (CA INDEX NAME)



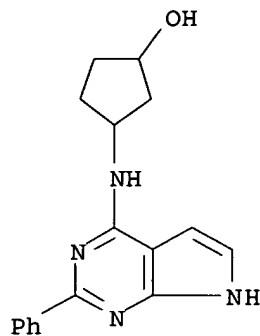
RN 343632-35-9 CAPLUS

CN Urea, N-[3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]-N'-ethyl- (9CI) (CA INDEX NAME)



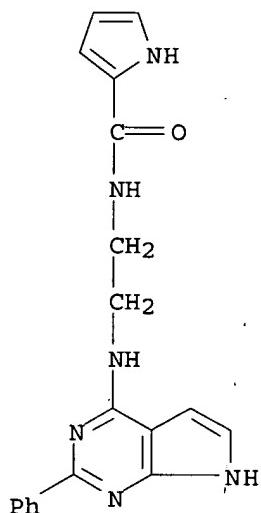
RN 343632-37-1 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]- (9CI) (CA INDEX NAME)



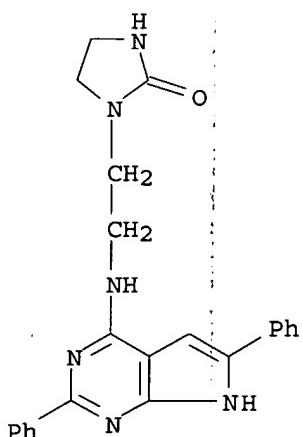
RN 343632-38-2 CAPLUS

CN 1H-Pyrrole-2-carboxamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)

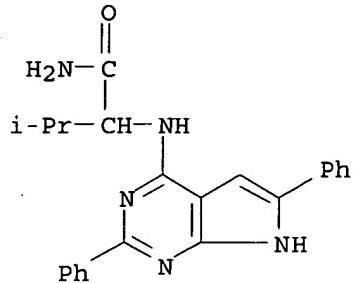


RN 343632-39-3 CAPLUS

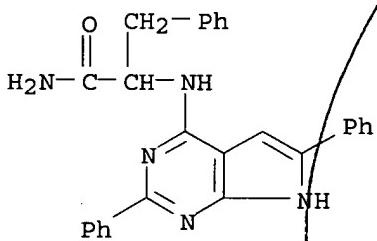
CN 2-Imidazolidinone, 1-[2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



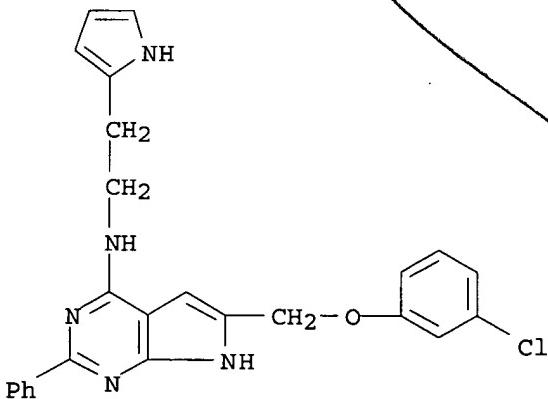
RN 343632-40-6 CAPLUS
CN Butanamide, 2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-3-methyl- (9CI) (CA INDEX NAME)



RN 343632-41-7 CAPLUS
CN Benzenepropanamide, α -[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]- (9CI) (CA INDEX NAME)

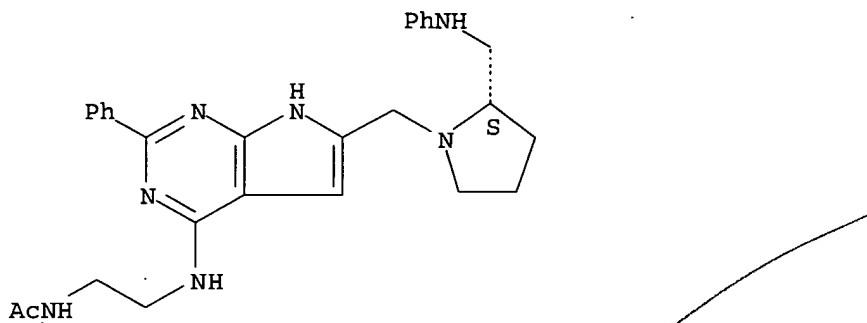


RN 343632-43-9 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 6-[(3-chlorophenoxy)methyl]-2-phenyl-N-[2-(1H-pyrrol-2-yl)ethyl]- (9CI) (CA INDEX NAME)



RN 343632-44-0 CAPLUS
CN Acetamide, N-[2-[(2-phenyl-6-[(2S)-2-[(phenylamino)methyl]-1-pyrrolidinyl]methyl]-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl- (9CI) (CA INDEX NAME)

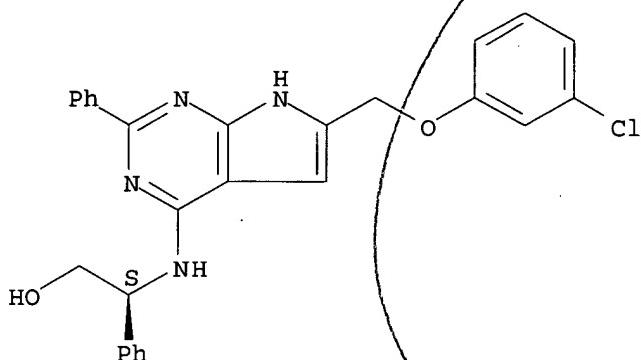
Absolute stereochemistry.



RN 343632-45-1 CAPLUS

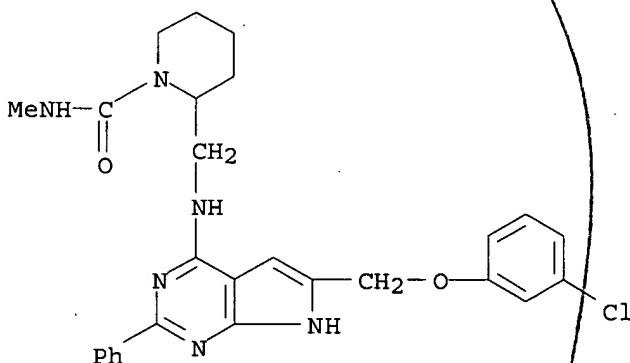
CN Benzeneethanol, β -[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]-, (β S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-46-2 CAPLUS

CN 1-Piperidinecarboxamide, 2-[[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl]-N-methyl- (9CI) (CA INDEX NAME)



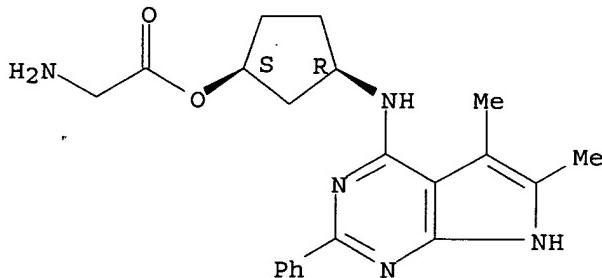
RN 500736-03-8 CAPLUS

CN Glycine, (1R,3S)-3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester, rel-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

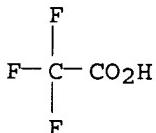
CRN 251946-51-7
CMF C21 H25 N5 O2

Relative stereochemistry.



CM 2

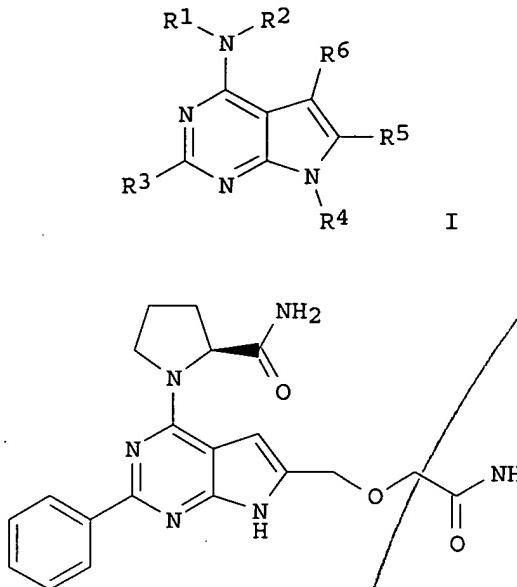
CRN 76-05-1
CMF C2 H F3 O2



L4 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:174478 CAPLUS
DN 138:221598
TI Preparation of pyrrolo[2,3-d]pyrimidinamines as selective adenosine A1 receptor inhibitors for treatment of asthma, COPD, and other conditions
IN Castelhano, Arlindo L.; McKibben, Bryan; Witter, David J.
PA OSI Pharmaceuticals, Inc., USA
SO U.S. Pat. Appl. Publ., 79 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2003045536	A1	20030306	US 2001-280	20011130
US 6680324	B2	20040120	US 2000-250895PP	20001201

OS MARPAT 138:221598
GI



AB Title diazapurinamines I [wherein R1, R2, and R4 = independently H or (un)substituted alkyl(aryl) or aryl; or NR1R2 = (un)substituted heterocyclyl; R3 = (un)substituted alkyl(aryl), aryl, CO2H, carboxy esters, or carboxamides; or C2R3R4 or C2R5R6 = (un)substituted carbocyclyl or heterocyclyl; R5 and R6 = independently H, halo, or (un)substituted alkyl(aryl) or aryl; and pharmaceutically acceptable salts and prodrugs thereof] were prepared as adenosine A1 specific inhibitors. For example, 4-chloro-5-methyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidine was protected with di-t-Bu dicarbonate (80%), brominated (84%), coupled with anhydrous Me glycolate (99%), coupled with L-prolinamide (92%), and deprotected (93%) to give II. The latter exhibited adenosine A1 receptor binding equal to or surpassing that of reference compds. and is expected to have better water solubility ($cLogP = 1.5$) than reference compds. ($cLogP = 3.8$). Efficacy and structure activity profiles of diazapurines of the invention are also disclosed. Thus, I are useful for the treatment of asthma, chronic obstructive pulmonary disease (COPD), allergic rhinitis, upper respiratory disorder, and congestive heart failure (no data).

IT 251946-08-4P

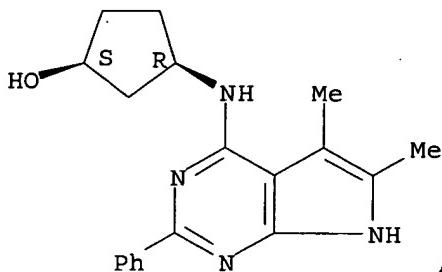
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(A1 receptor inhibitor; preparation of pyrrolopyrimidinamines adenosine A1 receptor inhibitors from aminocyanopyrroles for treatment of asthma, COPD, and other conditions)

RN 251946-08-4 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



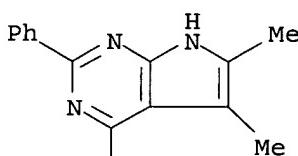
IT 246855-42-5P, 4-[(2-Acetylaminethyl)amino]-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine 251946-07-3P, 4-[(3-trans-Hydroxycyclopentyl)amino]-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine 251946-37-9P, 4-[(2-Acetylaminopropyl)amino]-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine 251946-38-0P, (R)-4-[(2-Acetylaminopropyl)amino]-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine 251946-39-1P, (R)-4-[(1-Methyl-2-acetylaminethyl)amino]-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine 251946-40-4P, (S)-4-[(2-Acetylaminopropyl)amino]-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine 251946-41-5P, (S)-4-[(1-Methyl-2-acetylaminethyl)amino]-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine 251946-45-9P, 4-[(2-Methyl-2-acetylaminopropyl)amino]-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine 251946-46-0P, 4-[(1-Methyl-2-acetylaminethyl)amino]-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine 251946-55-1P, 4-[(2-Acetamidobutyl)amino]-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine 343632-20-2P 343969-97-1P
500736-03-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(A1 receptor inhibitor; preparation of pyrrolopyrimidinamines adenosine A1 receptor inhibitors from aminocyanopyrroles for treatment of asthma, COPD, and other conditions)

RN 246855-42-5 CAPLUS

CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl] - (9CI) (CA INDEX NAME)

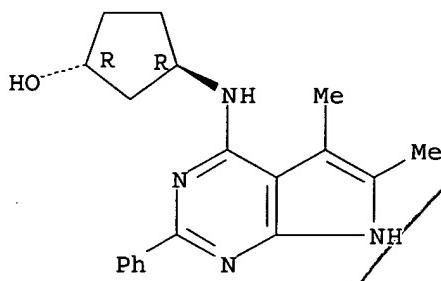


RN 251946-07-3 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3R)-rel- (9CI) (CA INDEX NAME)

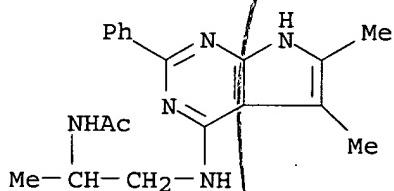
Relative stereochemistry.

10/035753



RN 251946-37-9 CAPLUS

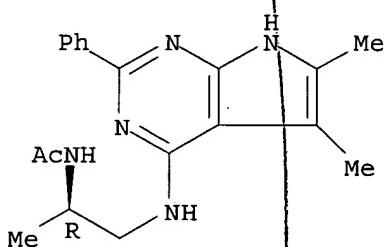
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)



RN 251946-38-0 CAPLUS

CN Acetamide, N-[(1R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

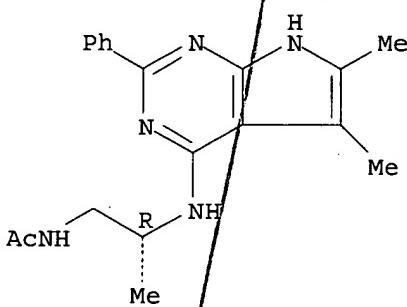
Absolute stereochemistry.



RN 251946-39-1 CAPLUS

CN Acetamide, N-[(2R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

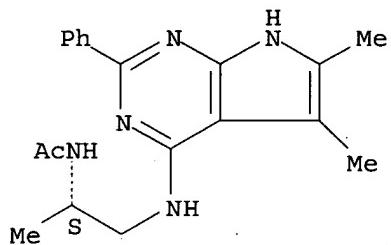
Absolute stereochemistry.



RN 251946-40-4 CAPLUS

CN Acetamide, N-[(1S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

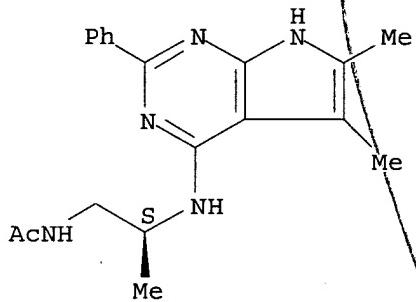
Absolute stereochemistry.



RN 251946-41-5 CAPLUS

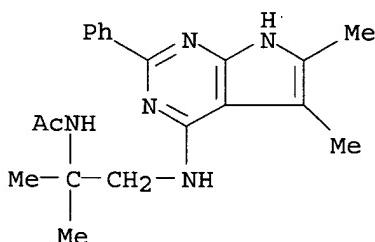
CN Acetamide, N-[(2S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



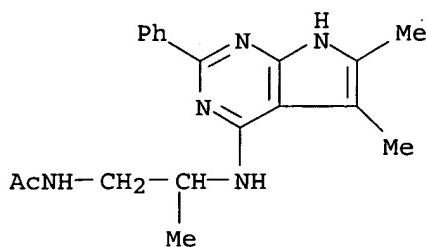
RN 251946-45-9 CAPLUS

CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1,1-dimethylethyl]- (9CI) (CA INDEX NAME)

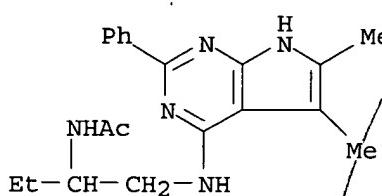


RN 251946-46-0 CAPLUS

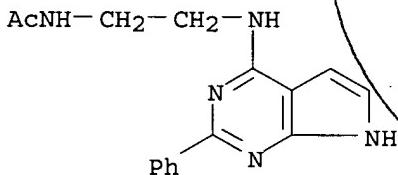
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)



RN 251946-55-1 CAPLUS
CN Acetamide, N-[1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]propyl]-(9CI) (CA INDEX NAME)

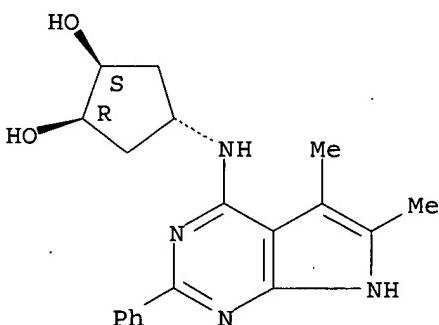


RN 343632-20-2 CAPLUS
CN Acetamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]-(9CI) (CA INDEX NAME)



RN 343969-97-1 CAPLUS
CN 1,2-Cyclopentanediol, 4-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1 α ,2 α ,4 β)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

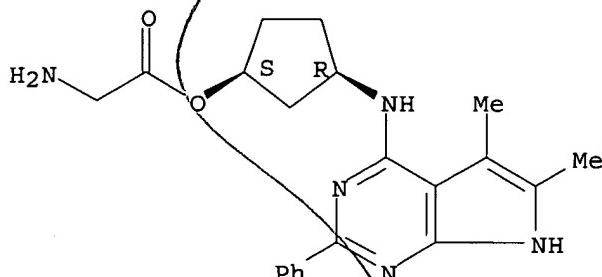


RN 500736-03-8 CAPLUS
CN Glycine, (1R,3S)-3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester, rel-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

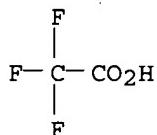
CRN 251946-51-7
CMF C21 H25 N5 O2

Relative stereochemistry.



CM 2

CRN 76-05-1
CMF C2 H F3 O2



L4 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:555495 CAPLUS
DN 137:109485
TI Preparation of pyrrolopyrimidinylprolineamides and analogs as adenosine receptor antagonists
IN Castelhano, Arlindo L.; McKibben, Bryan; Witter, David J.
PA Osi Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 320 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2002057267	A1	20020725	WO 2001-US45280	20011130	
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US 1999-169037PP 19991202

US 2000-728316 A 20001201

10/035753

US 2002058667	A1	20020516	US 2000-728616 A 20001201
US 6680322	B2	20040120	US 2000-728607 A 20001204
US 2002094974	A1	20020718	US 2000-728316 20001201
US 2003036545	A1	20030220	US 1999-168803PP 19991202
US 6664252	B2	20031216	US 2000-728616 20001201
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NO 2003002482	A	20030728	US 2000-728316 A 20001201
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			US 2000-728316 A 20001201
			US 2000-728616 A 20001201
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PATENT FAMILY INFORMATION:

FAN 2002:368992

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PI	US 2002058667	A1	20020516	US 2000-728316	20001201
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NO 2003002482 A 20030728

US 2000-728316 A 20001201

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US 2000-728607 A 20001204

WO 2001-US45280W 20011130

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US 2000-728316 A 20001201

US 2000-728616 A 20001201

US 2000-728607 A 20001204

WO 2001-US45280W 20011130

FAN 2002:540257

PATENT NO. KIND DATE

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PI US 2002094974 A1 20020718

APPLICATION NO. DATE

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US 2000-728616 20001201

US 1999-169036PP 19991202

WO 2001-US45280 20011130

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 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 1999-169037PP 19991202

US 2000-728316 A 20001201

US 2000-728616 A 20001201

US 2000-728607 A 20001204

EP 2001-997029 20011130

EP 1347980 A1 20031001

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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US 2000-728316 A 20001201

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US 2000-728607 A 20001204

WO 2001-US45280W 20011130

NO 2003002482 A 20030728

NO 2003-2482 20030602

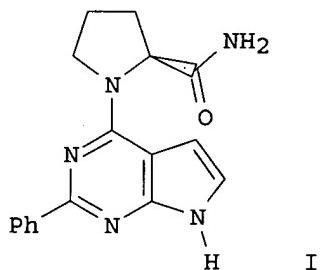
US 2000-728316 A 20001201

US 2000-728616 A 20001201

US 2000-728607 A 20001204

WO 2001-US45280W 20011130

OS MARPAT 137:109485
 GI



AB Title compds., e.g., I, were prepared Data for biol. activity of title compds. were given.

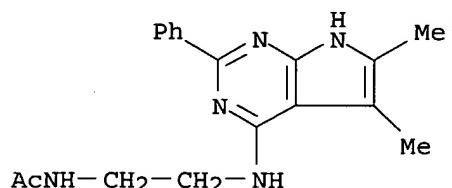
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 343632-40-6P 343632-41-7P 343632-43-9P
 343632-44-0P 343632-45-1P 343632-46-2P
 343969-97-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrrolopyrimidinylprolineamides and analogs as adenosine receptor antagonists)

RN 246855-42-5 CAPLUS

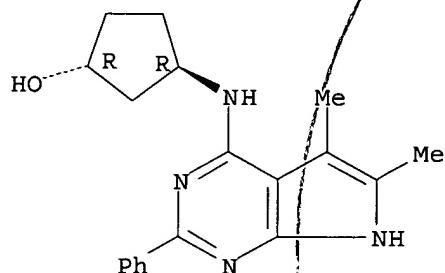
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RN 251946-07-3 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3R)-rel- (9CI) (CA INDEX NAME)

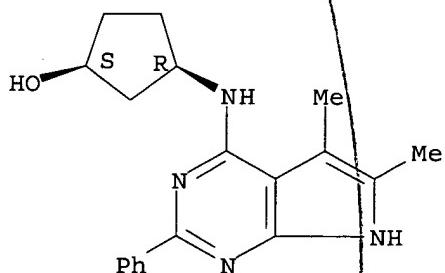
Relative stereochemistry.



RN 251946-08-4 CAPLUS

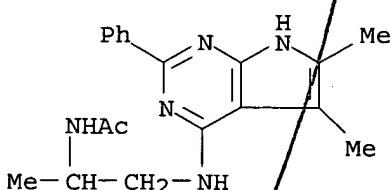
CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 251946-37-9 CAPLUS

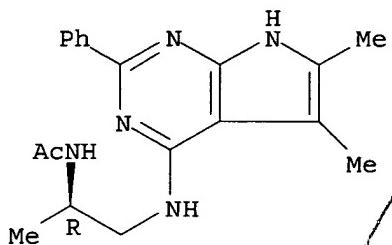
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)



RN 251946-38-0 CAPLUS

CN Acetamide, N-[(1R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

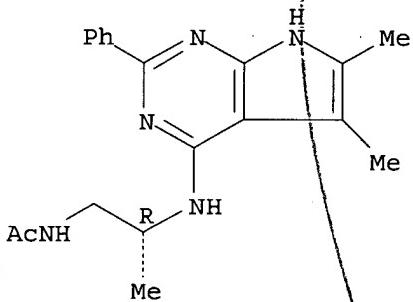
Absolute stereochemistry.



RN 251946-39-1 CAPLUS

CN Acetamide, N-[(2R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

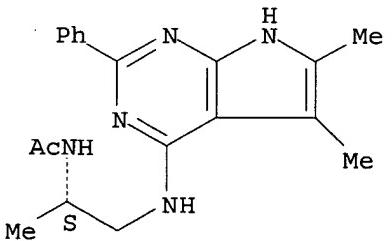
Absolute stereochemistry.



RN 251946-40-4 CAPLUS

CN Acetamide, N-[(1S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

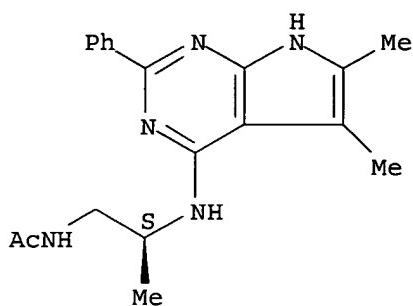
Absolute stereochemistry.



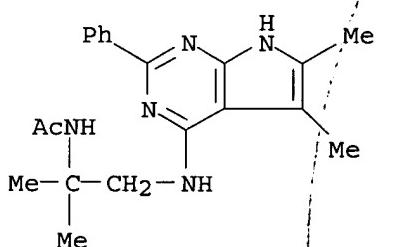
RN 251946-41-5 CAPLUS

CN Acetamide, N-[(2S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

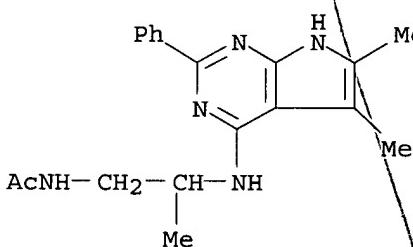
Absolute stereochemistry.



RN 251946-45-9 CAPLUS
 CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1,1-dimethylethyl]- (9CI) (CA INDEX NAME)



RN 251946-46-0 CAPLUS
 CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

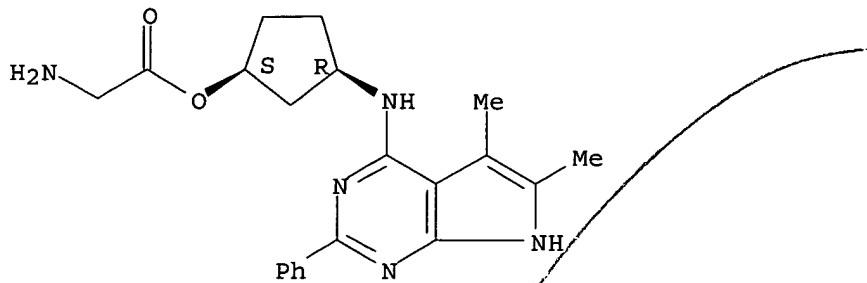


RN 251946-52-8 CAPLUS
 CN Glycine, (1R,3S)-3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester, rel-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

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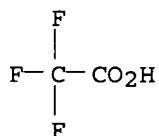
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Relative stereochemistry.

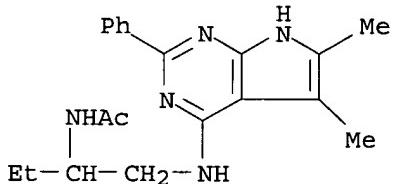


CM 2

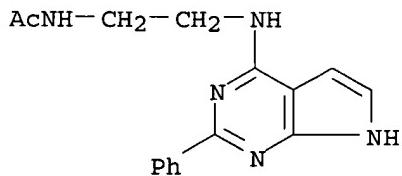
CRN 76-05-1
CMF C2 H F3 O2



RN 251946-55-1 CAPLUS
CN Acetamide, N-[1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]propyl - (9CI) (CA INDEX NAME)

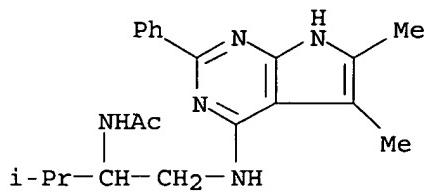


RN 343632-20-2 CAPLUS
CN Acetamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl] - (9CI) (CA INDEX NAME)



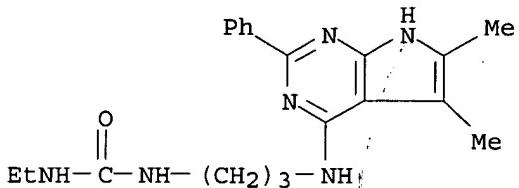
RN 343632-31-5 CAPLUS
CN Acetamide, N-[1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]-2-methylpropyl - (9CI) (CA INDEX NAME)

10/035753



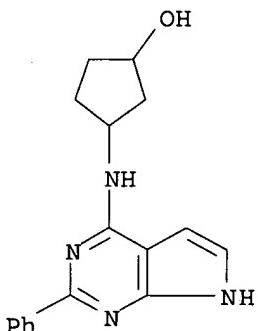
RN 343632-35-9 CAPLUS

CN Urea, N-[3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]-N'-ethyl- (9CI) (CA INDEX NAME)



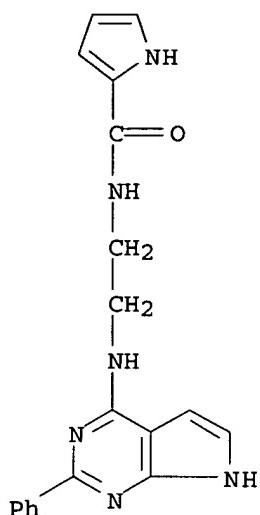
RN 343632-37-1 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]- (9CI) (CA INDEX NAME)



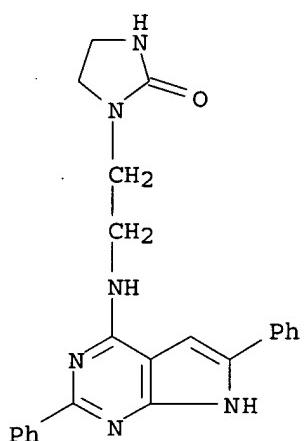
RN 343632-38-2 CAPLUS

CN 1H-Pyrrole-2-carboxamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



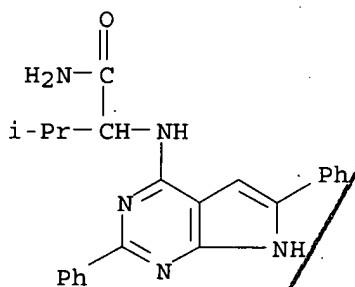
RN 343632-39-3 CAPLUS

CN 2-Imidazolidinone, 1-[2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl] (9CI) (CA INDEX NAME)



RN 343632-40-6 CAPLUS

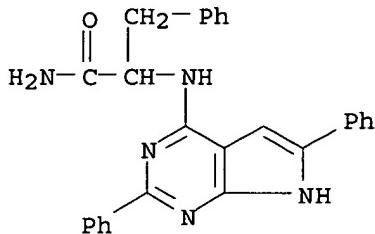
CN Butanamide, 2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-3-methyl- (9CI) (CA INDEX NAME)



RN 343632-41-7 CAPLUS

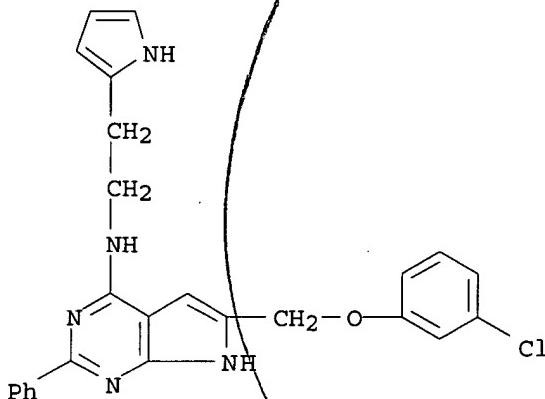
10/035753

CN Benzenepropanamide, α -[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]- (9CI) (CA INDEX NAME)



RN 343632-43-9 CAPLUS

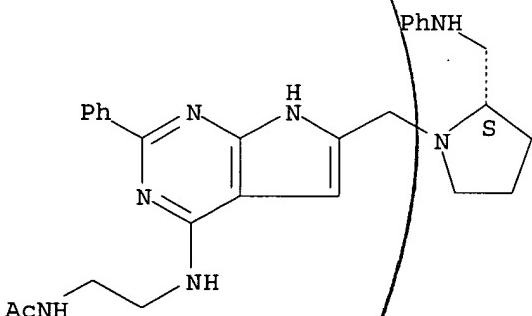
CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 6-[(3-chlorophenoxy)methyl]-2-phenyl-N-[2-(1H-pyrrol-2-yl)ethyl]- (9CI) (CA INDEX NAME)



RN 343632-44-0 CAPLUS

CN Acetamide, N-[2-[[2-phenyl-6-[(2S)-2-[(phenylamino)methyl]-1-pyrrolidinyl]methyl]-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl]- (9CI) (CA INDEX NAME)

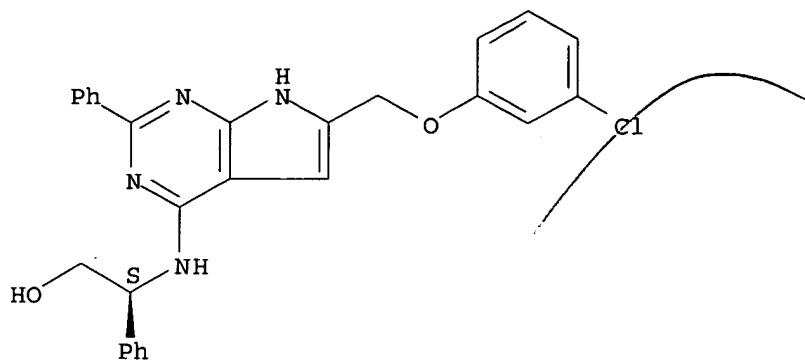
Absolute stereochemistry.



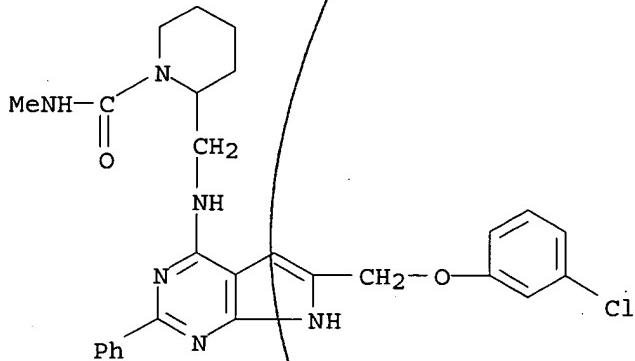
RN 343632-45-1 CAPLUS

CN Benzeneethanol, 8-[(6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (β S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

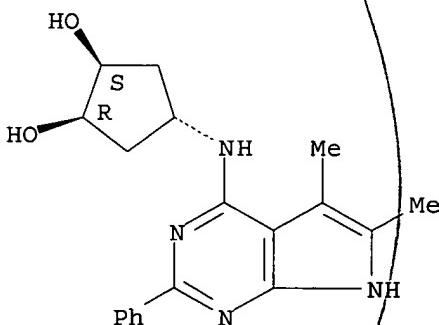


RN 343632-46-2 CAPLUS
 CN 1-Piperidinecarboxamide, 2-[[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 343969-97-1 CAPLUS
 CN 1,2-Cyclopentanediol, 4-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1 α ,2 α ,4 β)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:540257 CAPLUS

DN 137:109288
 TI Preparation of pyrrolo[2,3-d]pyrimidines as selective inhibitors of the
 adenosine A3 receptor
 IN Castelhano, Arlindo L.; McKibben, Bryan; Witter, David J.
 PA USA
 SO U.S. Pat. Appl. Publ., 83 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002094974	A1	20020718	US 2000-728616	20001201
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				US 2000-728316 A	20001201
				US 2000-728616 A	20001201
				US 2000-728607 A	20001204
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				NO 2003-2482	20030602
				US 2000-728316 A	20001201
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PATENT FAMILY INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002058667	A1	20020516	US 2000-728316	20001201
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NO 2003002482 A 20030728
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WO 2001-US45280W 20011130
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US 2000-728316 A 20001201
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US 2000-728607 A 20001204
WO 2001-US45280W 20011130

FAN 2002:555495

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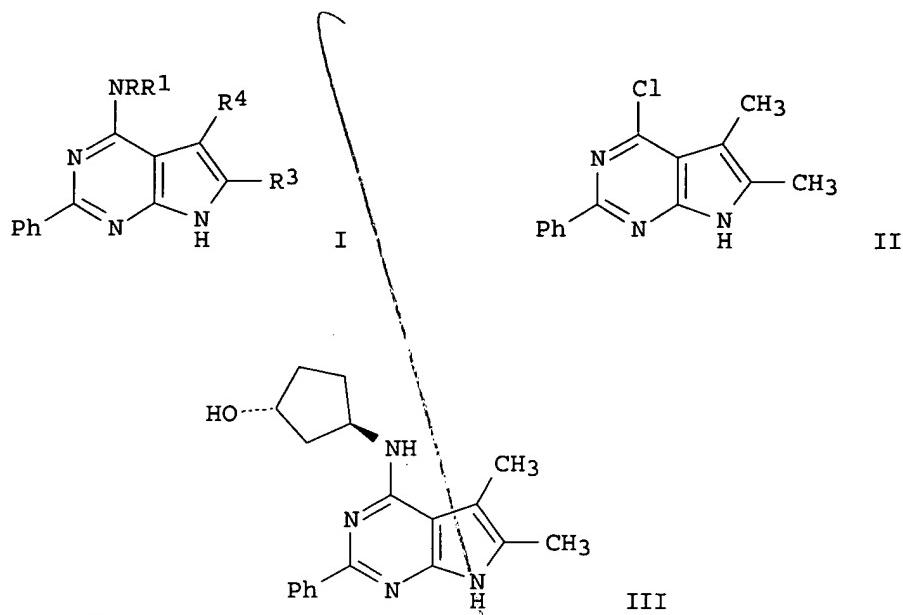
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US 6680322 B2 20040120 US 2000-728316 A 20001201
US 2002094974 A1 20020718 US 2000-728616 A 20001201
US 1999-168803PP 19991202
US 2003036545 A1 20030220 US 1999-169036PP 19991202
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EP 1347980 A1 20031001 EP 2001-997029 20011130
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NO 2003002482 A 20030728
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US 2000-728616 A 20001201
US 2000-728607 A 20001204
WO 2001-US45280W 20011130

OS MARPAT 137:109288
GI



AB Pyrrolopyrimidines I [R = 3-hydroxycyclopentylamino ethylamino carbonylamino Pr, N,N-diethylamino carbonylamino Et, thioacetamido Et, 3-amino acetoxy cyclopentyl, 3-hydroxycyclopentyl, 2-pyrrolyl carbonyl aminoethyl, 2-imidazolinone] Et, 1-aminocarbonyl-2-methylpropyl, 1-aminocarbonyl-2-Ph Et, 3-hydroxyazetidino, 2-imidazoleethyl, acetamidoethyl, 1-(R)-phenyl-2-hydroxyethyl, N-methylaminocarbonyl pyridyl-2-methyl; R1 = H; RR1N = 3-hydroxypyrrolidino, 3-methyloxy carbonylmethyl pyrrolidino, 3-aminocarbonylmethyl pyrrolidino, 3-hydroxymethyl piperidino; R3, R4 = H, (un)substituted alkyl, aryl] are prepared as selective inhibitors of adenosine receptors, particularly the adenosine A3 receptor, for the treatment of diseases such as asthma, diarrhea, chronic obstructive pulmonary disease, allergic rhinitis, or for the treatment of eye damage caused either by disease or injury. Human adenosine receptors are transformed into yeast; the modified yeast are used to assay the invention compds. I for their adenosine receptor binding and selectivities. E.g., 1-(1-phenylethyl)-2-amino-3-cyano-4,5-dimethylpyrrole is acylated with PhCOCl to give the benzamide which undergoes cyclocondensation with concentrated H₂SO₄ in MeOH to give a pyrrolopyrimidinone; removal of the phenethyl group with polyphosphoric acid and chlorination of the pyrrolopyrimidinone with POCl₃ gives the intermediate chloropyrrolopyrimidine II. E.g., addition of amines such as trans-3-amino-1-cyclopentanol to II in DMSO gives aminopyrrolopyrimidines such as III. III has a Ki for the adenosine A1 receptor of 29 nM and a Ki for the adenosine A3 receptor of 3.1 nM while binding to the adenosine A2a and A2b receptors with Ki values of 191 nM and 1143 nM, resp. Formulations of these compds. are claimed (no data). Methods for the preparation of I from the acylation of aminopyrroles with acyl chlorides followed by cyclocondensation and deprotection, chlorination, and substitution of the chlorine atom with an amine are claimed.

IT

246855-42-5P 246855-48-1P 251946-07-3P
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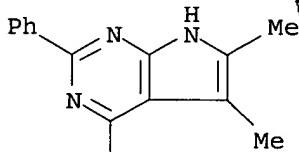
343633-16-9P 343969-97-1P 443118-58-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(invention compound; preparation of pyrrolo[2,3-d]pyrimidines as selective inhibitors of the adenosine A₃ receptor for the treatment of diseases such as diarrhea, allergic rhinitis, and eye damage resulting from injuries or disease)

RN 246855-42-5 CAPLUS

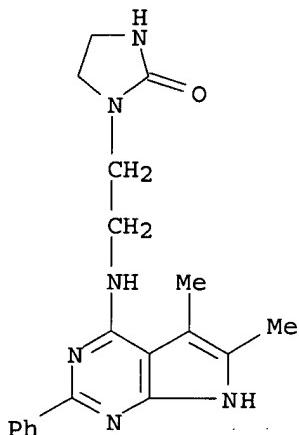
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



AcNH-CH₂-CH₂-NH

RN 246855-48-1 CAPLUS

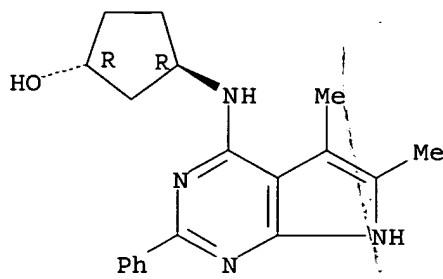
CN 2-Imidazolidinone, 1-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



RN 251946-07-3 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3R)-rel- (9CI) (CA INDEX NAME)

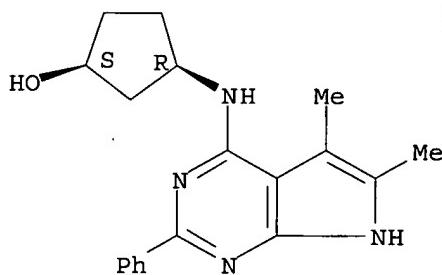
Relative stereochemistry.



RN 251946-08-4 CAPLUS

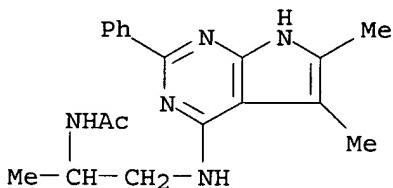
CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 251946-37-9 CAPLUS

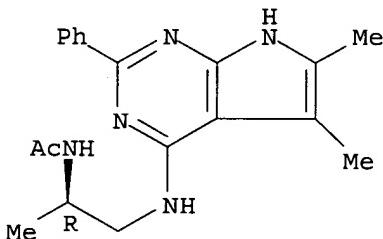
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)



RN 251946-38-0 CAPLUS

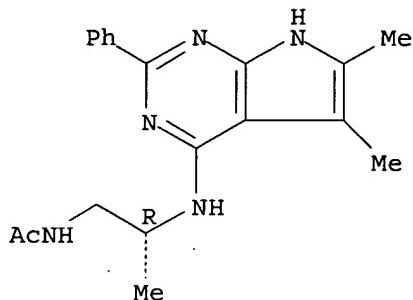
CN Acetamide, N-[(1R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



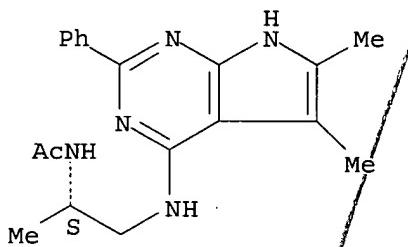
RN 251946-39-1 CAPLUS
CN Acetamide, N-[(2R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



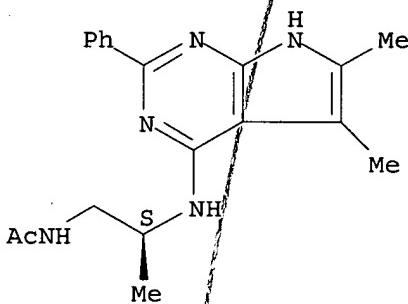
RN 251946-40-4 CAPLUS
CN Acetamide, N-[(1S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

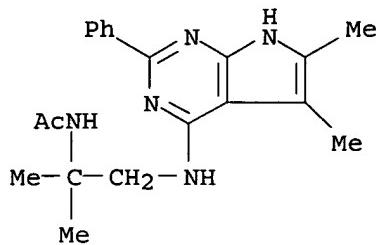


RN 251946-41-5 CAPLUS
CN Acetamide, N-[(2S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

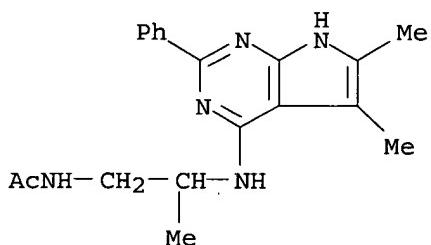


RN 251946-45-9 CAPLUS
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1,1-dimethylethyl]- (9CI) (CA INDEX NAME)



RN 251946-46-0 CAPLUS

CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)



RN 251946-52-8 CAPLUS

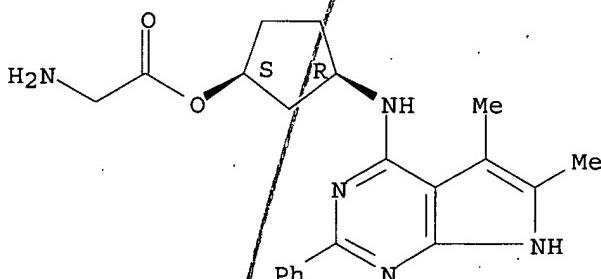
CN Glycine, (1R,3S)-3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester, rel-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 251946-51-7

CMF C21 H25 N5 O2

Relative stereochemistry.

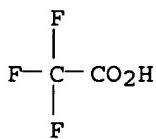


CM 2

CRN 76-05-1

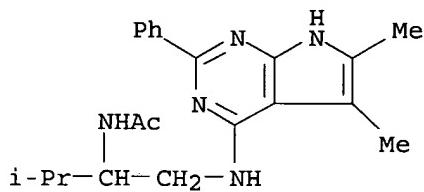
CMF C21 H25 N5 O2

107035753



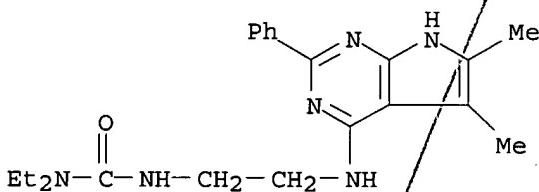
RN 343632-31-5 CAPLUS

CN Acetamide, N-[1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]-2-methylpropyl- (9CI) (CA INDEX NAME)



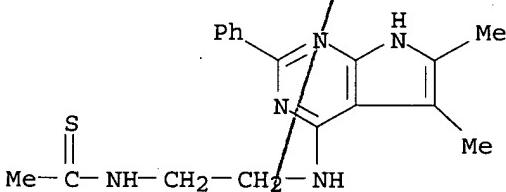
RN 343632-32-6 CAPLUS

CN Urea, N'-(2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl)-N,N-diethyl- (9CI) (CA INDEX NAME)



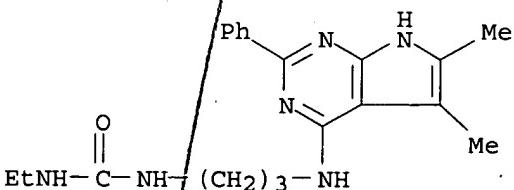
RN 343632-33-7 CAPLUS

CN Ethanethioamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



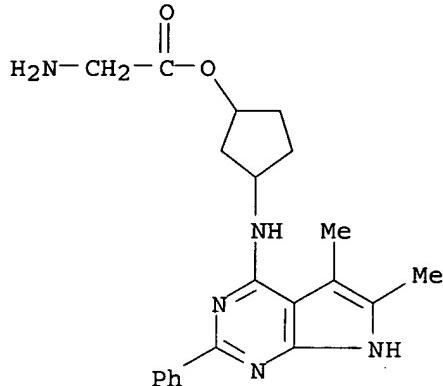
RN 343632-35-9 CAPLUS

CN Urea, N-[3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]-N'-ethyl- (9CI) (CA INDEX NAME)



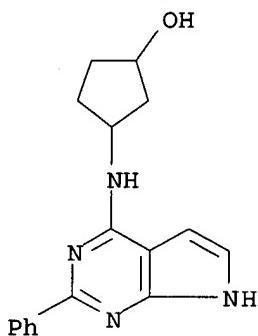
RN 343632-36-0 CAPLUS

CN Glycine, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester (9CI) (CA INDEX NAME)



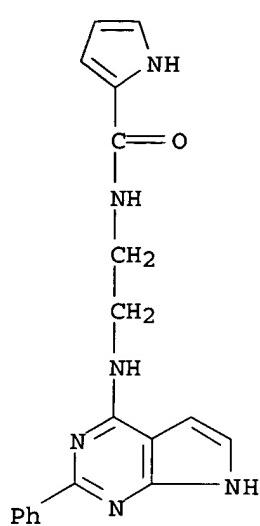
RN 343632-37-1 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]- (9CI)
(CA INDEX NAME)

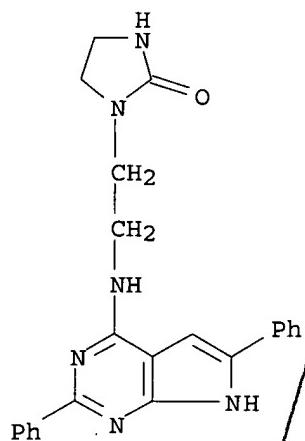


RN 343632-38-2 CAPLUS

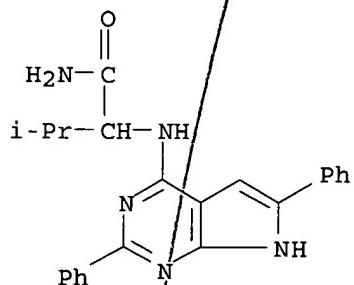
CN 1H-Pyrrole-2-carboxamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



RN 343632-39-3 CAPLUS
CN 2-Imidazolidinone, 1-[2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)aminoethyl]- (9CI) (CA INDEX NAME)



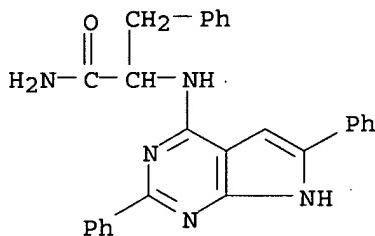
RN 343632-40-6 CAPLUS
CN Butanamide, 2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-3-methyl- (9CI) (CA INDEX NAME)



RN 343632-41-7 CAPLUS

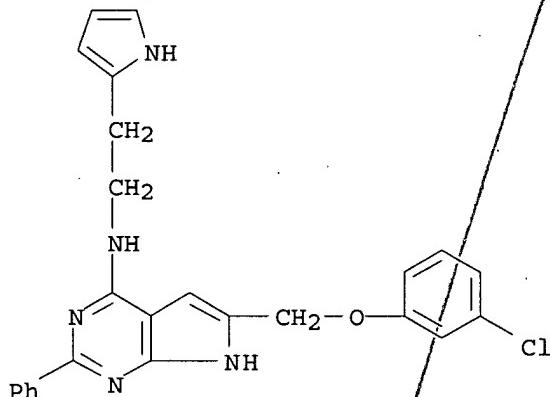
10/035753

CN Benzenepropanamide, α -[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]- (9CI) (CA INDEX NAME)



RN 343632-43-9 CAPLUS

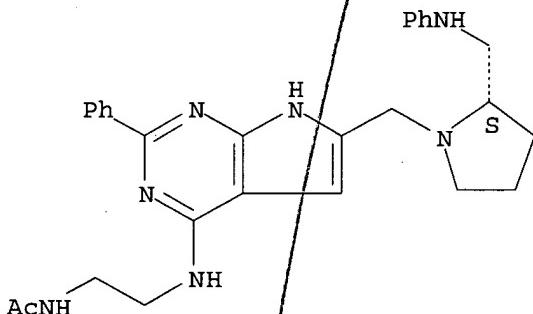
CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 6-[(3-chlorophenoxy)methyl]-2-phenyl-N-[2-(1H-pyrrol-2-yl)ethyl]- (9CI) (CA INDEX NAME)



RN 343632-44-0 CAPLUS

CN Acetamide, N-[2-[[2-phenyl-6-[(2S)-2-[(phenylamino)methyl]-1-pyrrolidinyl]methyl]-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl]- (9CI) (CA INDEX NAME)

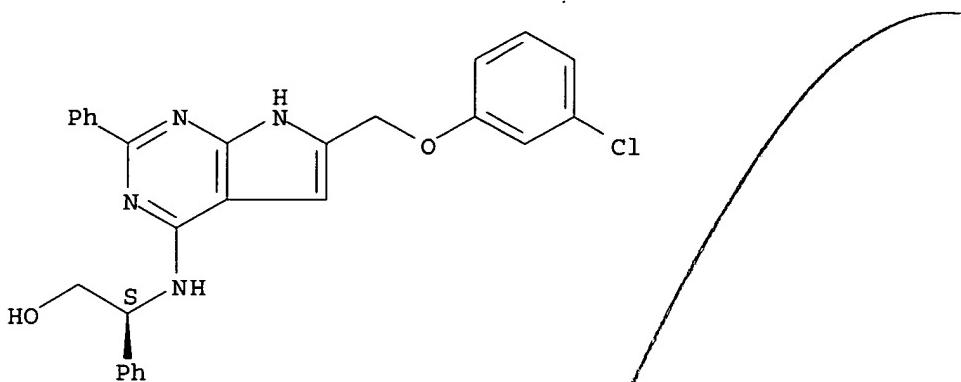
Absolute stereochemistry.



RN 343632-45-1 CAPLUS

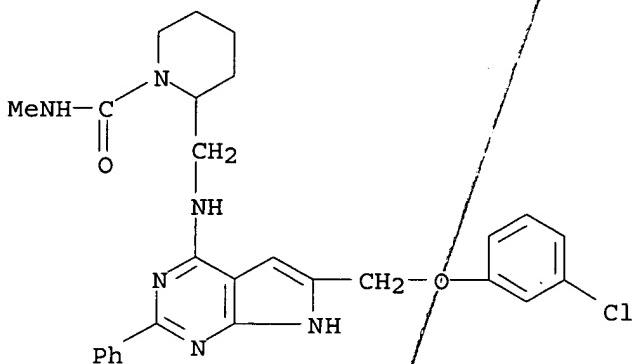
CN Benzeneethanol, β -[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]-, (β S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-46-2 CAPLUS

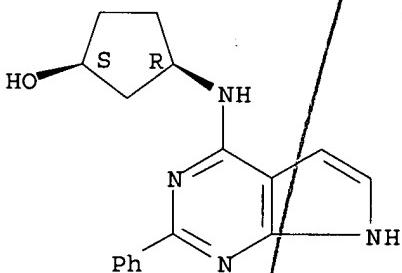
CN 1-Piperidinecarboxamide, 2-[[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 343632-77-9 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1S,3R)- (9CI) (CA INDEX NAME)

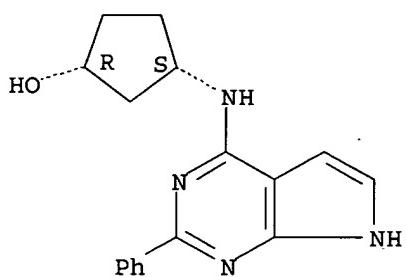
Absolute stereochemistry.



RN 343632-78-0 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S)- (9CI) (CA INDEX NAME)

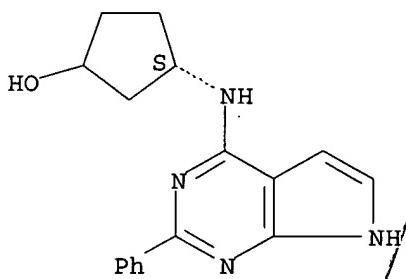
Absolute stereochemistry.



RN 343632-79-1 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (3S)-
(9CI) (CA INDEX NAME)

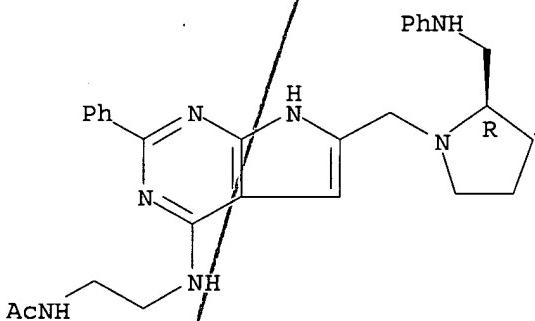
Absolute stereochemistry.



RN 343632-80-4 CAPLUS

CN Acetamide, N-[2-[(2-phenyl-6-[(2R)-2-[(phenylamino)methyl]-1-pyrrolidinyl]methyl]-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

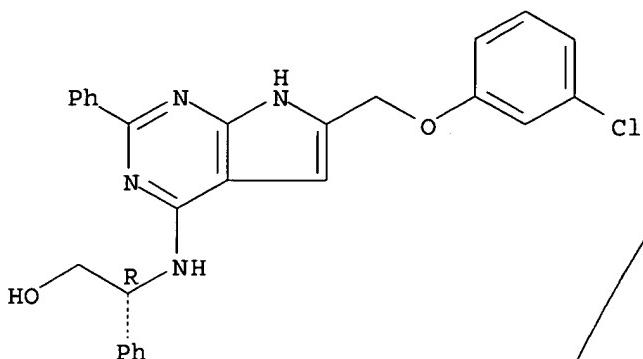


RN 343632-81-5 CAPLUS

CN Benzeneethanol, β-[(6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (βR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

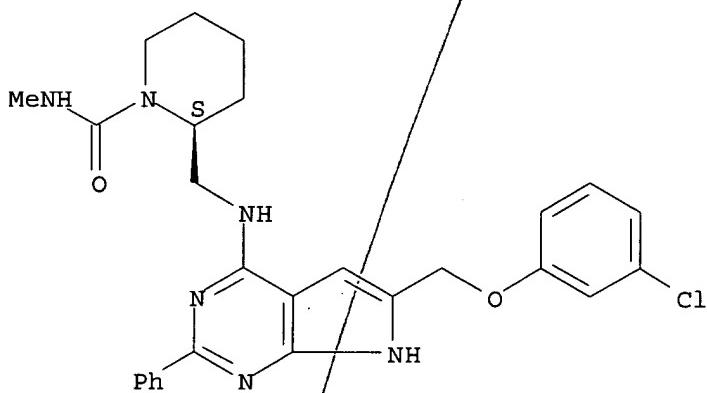
10/035753



RN 343632-82-6 CAPLUS

CN 1-Piperidinecarboxamide, 2-[[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl]-N-methyl-, (2S)- (9CI) (CA INDEX NAME)

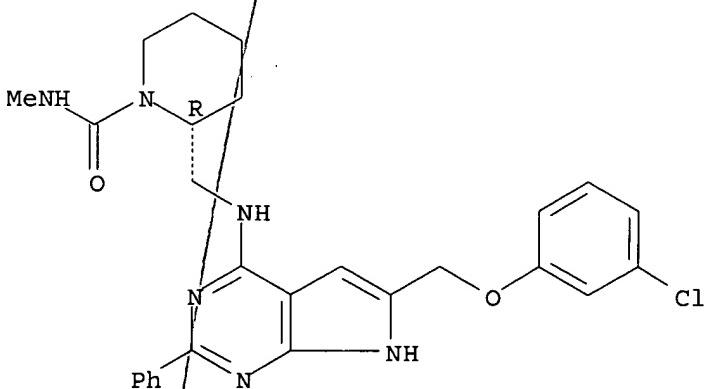
Absolute stereochemistry.



RN 343632-83-7 CAPLUS

CN 1-Piperidinecarboxamide, 2-[[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

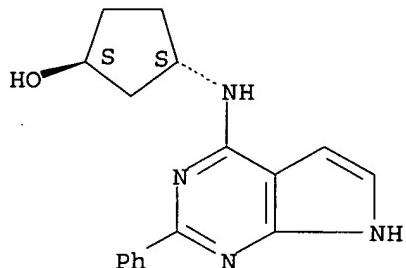


10/035753

RN 343633-16-9 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1S,3S)- (9CI) (CA INDEX NAME)

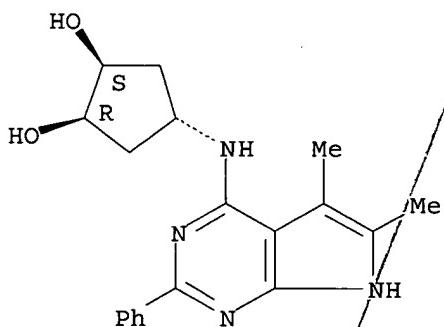
Absolute stereochemistry.



RN 343969-97-1 CAPLUS

CN 1,2-Cyclopentanediol, 4-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1 α ,2 α ,4 β)- (9CI) (CA INDEX NAME)

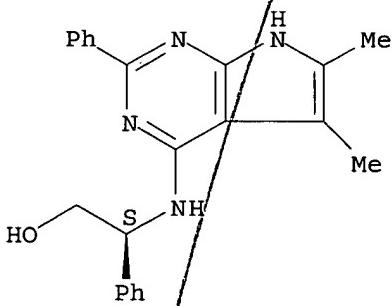
Relative stereochemistry.



RN 443118-58-9 CAPLUS

CN Benzeneethanol, β -[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (β S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:368992 CAPLUS

DN 136:386128

10/035753

TI Synthesis and use of substituted pyrrolo[2,3-b]pyrimidines as selective
 adenosine A1, A2a and A3 receptor antagonists
 IN Castelhano, Arlindo L.; McKibben, Bryan; Witter, David J.
 PA OSI Pharmaceuticals, Inc., USA
 SO U.S. Pat. Appl. Publ., 79 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002058667	A1	20020516	US 2000-728316	20001201
	US 6680322	B2	20040120	US 1999-168803PP	19991202
WO	2002057267	A1	20020725	WO 2001-US45280	20011130
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EP	1347980	A1	20031001	US 2000-728316 A	20001201
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			US 2000-728616 A	20001201	
			US 2000-728607 A	20001204	
			EP 2001-997029	20011130	
NO	2003002482	A	20030728	US 2000-728316 A	20001201
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			US 2000-728607 A	20001204	
			WO 2001-US45280W	20011130	
			NO 2003-2482	20030602	
			US 2000-728316 A	20001201	
			US 2000-728616 A	20001201	
		US 2000-728607 A	20001204		
		WO 2001-US45280W	20011130		

PATENT FAMILY INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002094974	A1	20020718	US 2000-728616	20001201
	WO 2002057267	A1	20020725	US 1999-169036PP	19991202
WO	2002057267	A1	20020725	WO 2001-US45280	20011130
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EP	1347980	A1	20031001	US 2000-728316 A	20001201
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			US 2000-728316 A	20001201	

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IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

NO 2003002482

A 20030728

US 2000-728316 A 20001201
US 2000-728616 A 20001201
US 2000-728607 A 20001204
WO 2001-US45280W 20011130
NO 2003-2482 20030602
US 2000-728316 A 20001201
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WO 2001-US45280W 20011130

FAN 2002:555495

PATENT NO.

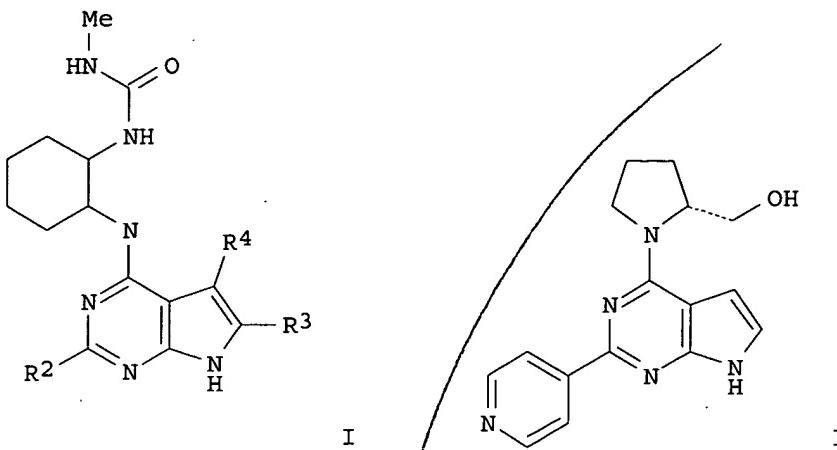
KIND DATE

APPLICATION NO. DATE

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	US 6680322	B2	20040120	US 2000-728316	A 20001201
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				US 2000-728607	A 20001204
				WO 2001-US45280W	20011130

OS MARPAT 136:386128

GI



AB Title compds. I and analogs [R2 = 5-6 membered aromatic ring; R3-4 = H, alkyl] were prepared. Over 100 examples were provided. Intermediate 4-chloro-7H-pyrrolo[2,3-d]pyrimidines were prepared by several routes from appropriately substituted cyano-pyrroles. Thus, 4-chloro-2-(4-pyridyl)-7H-pyrrolo[2,3-d]pyrimidine hydrochloride was reacted with D-prolinol (2.3 mol equiv) in DMSO at 120°C for 18 h to yield II in 13% yield after purification. Compound I [R2 = Ph; R3-4 = Me] exhibited 10-fold selectivity for binding to the adenosine A1 receptor than to A2a, A2b or A3 receptors. ClogP values were determined for selected example compds. I are useful for the treatment of COPD, allergic rhinitis, etc.

IT
246855-42-5P, Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl] - 251946-07-3P,
Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3R)-rel 251946-08-4P, Cyclopentanol,
3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S)-rel 251946-09-5P 251946-37-9P, Acetamide,
N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl] - 251946-38-0P, Acetamide, N-[(1R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl] - 251946-39-1P, Acetamide, N-[(2R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl] - 251946-40-4P,
Acetamide, N-[(1S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl] - 251946-41-5P, Acetamide,
N-[(2S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl] - 251946-45-9P, Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1,1-dimethylethyl] - 251946-46-0P; Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl] - 251946-52-8P,
Glycine, (1R,3S)-3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester, rel-, mono(trifluoroacetate)
251946-55-1P, Acetamide, N-[1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]propyl] - 343632-20-2P,
Acetamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl] - 343632-69-9P, 1H-Pyrrolo[2,3-d]pyrimidin-4-amine,
2-phenyl-N-[2-(1H-pyrrol-2-yl)ethyl] - 343632-77-9P,
Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1S,3R) - 343632-78-0P, Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S) - 343632-79-1P,
Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (3S) - 343632-80-4P, Acetamide, N-[2-[[2-phenyl-6-[(2R)-2-[(phenylamino)methyl]-1-pyrrolidinyl]methyl]-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl] - 343632-81-5P, Benzeneethanol,

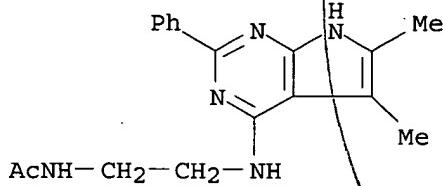
β -[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]-, (β R) - 343632-82-6P, 1-Piperidinecarboxamide,
 2-[[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]aminomethyl]-N-methyl-, (2S) - 343632-83-7P,
 1-Piperidinecarboxamide, 2-[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl-N-methyl-, (2R) -
 343633-16-9P, Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1S,3S) - 343969-97-1P,
 1,2-Cyclopentanediol, 4-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1 α ,2 α ,4 β)

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
 SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
 study); PREP (Preparation); USES (Uses)

(preparation and use of substituted 7H-pyrrolo[2,3-b]pyrimidines as
 selective adenosine A1, A2a and A3 receptor antagonists)

RN 246855-42-5 CAPLUS

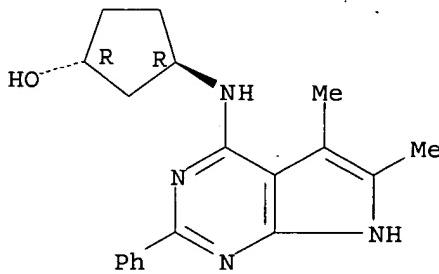
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



RN 251946-07-3 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3R)-rel- (9CI) (CA INDEX NAME)

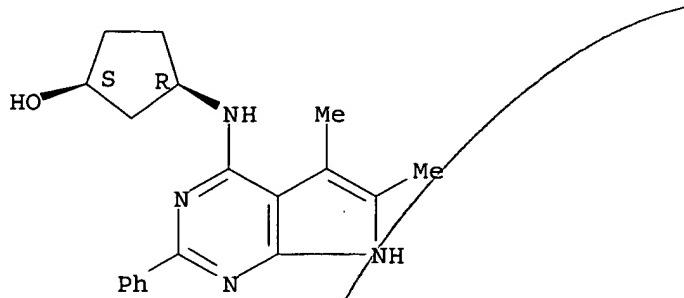
Relative stereochemistry.



RN 251946-08-4 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S)-rel- (9CI) (CA INDEX NAME)

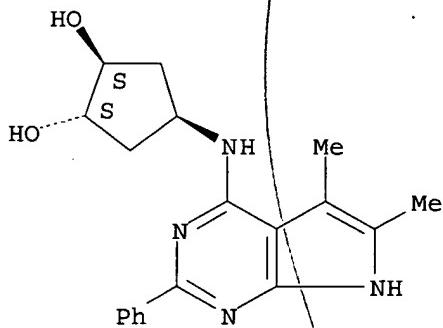
Relative stereochemistry.



RN 251946-09-5 CAPLUS

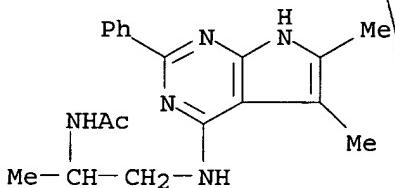
CN 1,2-Cyclopentanediol, 4-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, stereoisomer (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 251946-37-9 CAPLUS

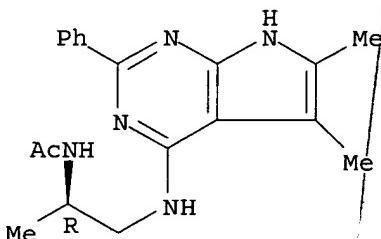
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)



RN 251946-38-0 CAPLUS

CN Acetamide, N-[(1R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

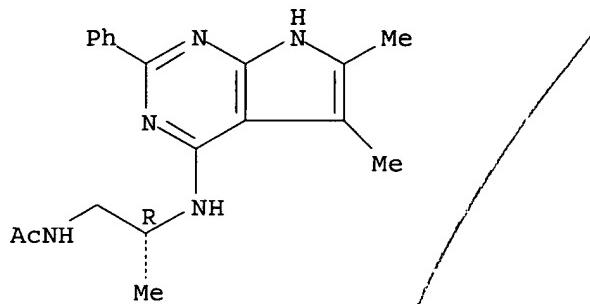
Absolute stereochemistry.



RN 251946-39-1 CAPLUS

CN Acetamide, N-[*(2R)*-2-[(5,6-dimethyl-2-phenyl-1*H*-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

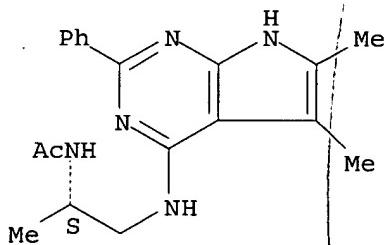
Absolute stereochemistry.



RN 251946-40-4 CAPLUS

CN Acetamide, N-[*(1S)*-2-[(5,6-dimethyl-2-phenyl-1*H*-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

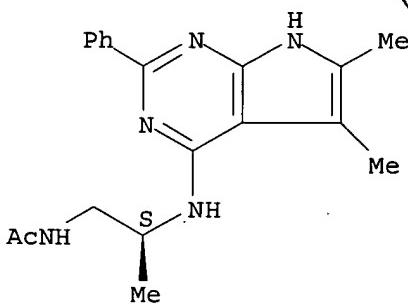
Absolute stereochemistry.



RN 251946-41-5 CAPLUS

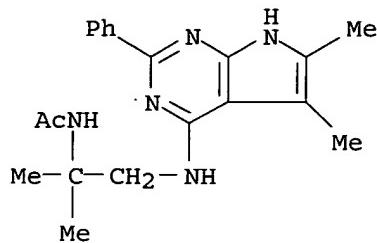
CN Acetamide, N-[*(2S)*-2-[(5,6-dimethyl-2-phenyl-1*H*-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



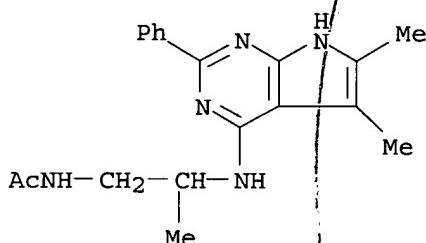
RN 251946-45-9 CAPLUS

CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1*H*-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1,1-dimethylethyl]- (9CI) (CA INDEX NAME)



RN 251946-46-0 CAPLUS

CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)



RN 251946-52-8 CAPLUS

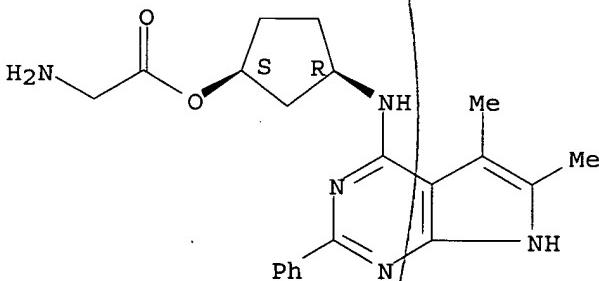
CN Glycine, (1R,3S)-3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester, rel-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 251946-51-7

CMF C21 H25 N5 O2

Relative stereochemistry

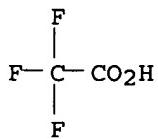


CM 2

CRN 76-05-1

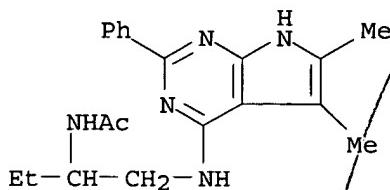
CMF C2 H F3 O2

10/035753



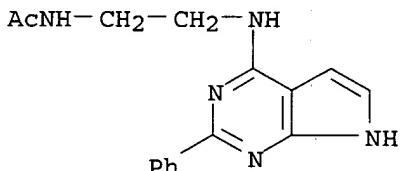
RN 251946-55-1 CAPLUS

CN Acetamide, N-[1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]propyl- (9CI) (CA INDEX NAME)



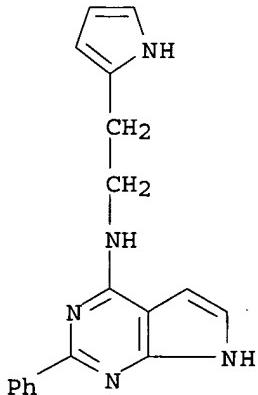
RN 343632-20-2 CAPLUS

CN Acetamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



RN 343632-69-9 CAPLUS

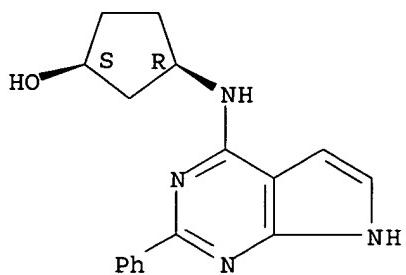
CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 2-phenyl-N-[2-(1H-pyrrol-2-yl)ethyl]- (9CI) (CA INDEX NAME)



RN 343632-77-9 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1S,3R)- (9CI) (CA INDEX NAME)

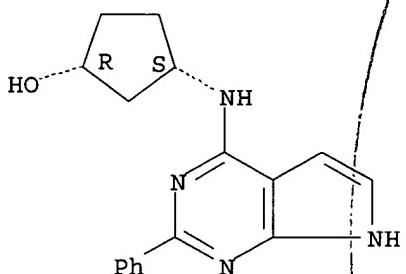
Absolute stereochemistry.



RN 343632-78-0 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R, 3S) - (9CI) (CA INDEX NAME)

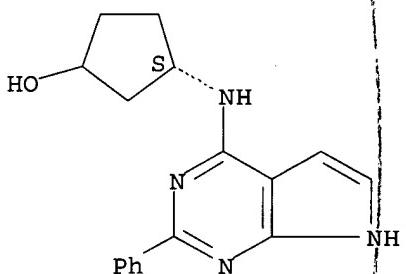
Absolute stereochemistry.



RN 343632-79-1 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (3S) - (9CI) (CA INDEX NAME)

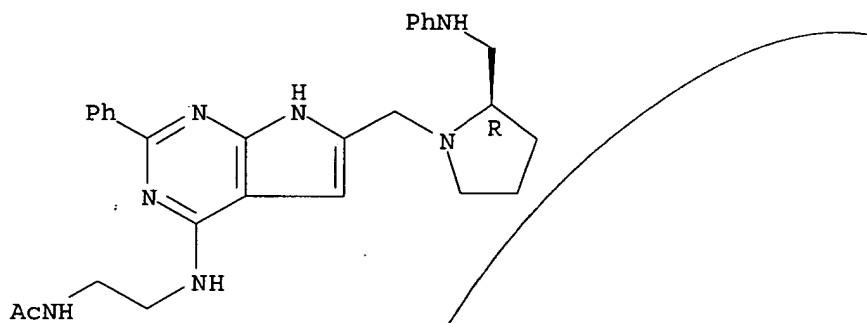
Absolute stereochemistry.



RN 343632-80-4 CAPLUS

CN Acetamide, N-[2-[(2-phenyl-6-[(2R)-2-[(phenylamino)methyl]-1-pyrrolidinyl]methyl]-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl - (9CI) (CA INDEX NAME)

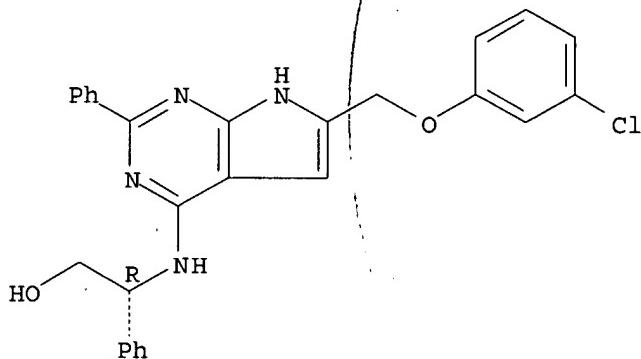
Absolute stereochemistry.



RN 343632-81-5 CAPLUS

CN Benzeneethanol, β -[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]-, (β R)- (9CI) (CA INDEX NAME)

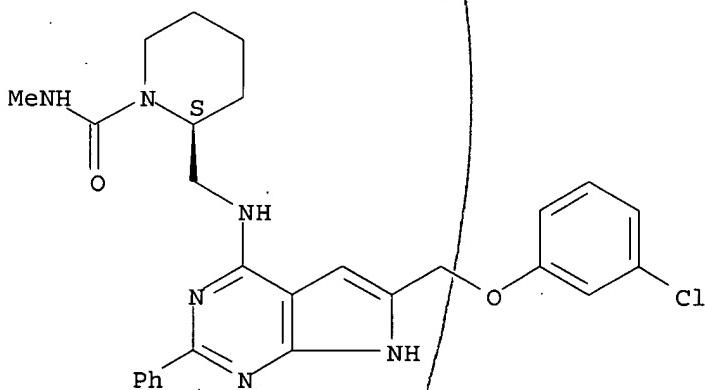
Absolute stereochemistry.



RN 343632-82-6 CAPLUS

CN 1-Piperidinecarboxamide, 2-[[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl]-N-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

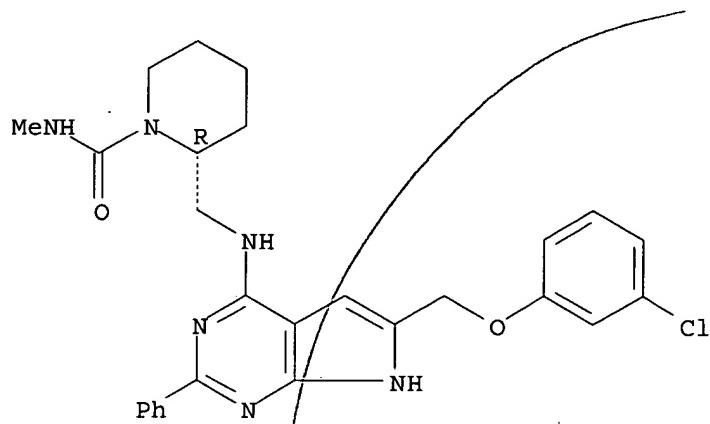


RN 343632-83-7 CAPLUS

CN 1-Piperidinecarboxamide, 2-[[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

10/035753

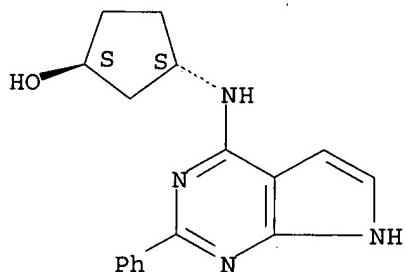
Absolute stereochemistry.



RN 343633-16-9 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1S,3S)- (9CI) (CA INDEX NAME)

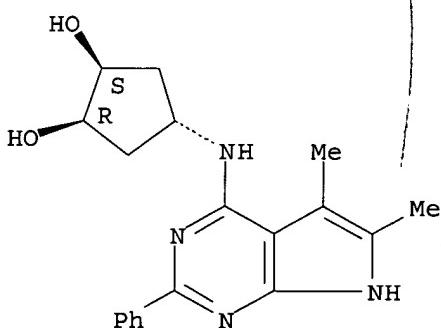
Absolute stereochemistry.



RN 343969-97-1 CAPLUS

CN 1,2-Cyclopentanediol, 4-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1 α ,2 α ,4 β)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L4 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:416773 CAPLUS
DN 135:46190

TI Synthesis and use of substituted pyrrolo[2,3-b]pyrimidines as selective
 adenosine A1, A2a and A3 receptor antagonists
 IN Castelhano, Arlindo L.; McKibben, Bryan; Witter, David J.
 PA Osi Pharmaceuticals, Inc., USA
 SO PCT Int. Appl., 368 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001039777	A1	20010607	WO 2000-US32702	20001201
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PATENT FAMILY INFORMATION:

FAN 1999:783937

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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				US 1999-126527PP	19990326
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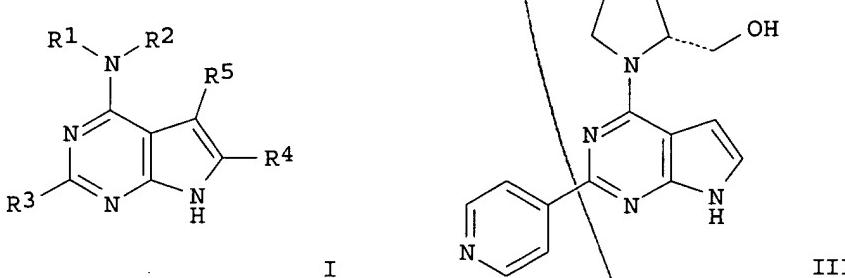
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FAN 2004:88297	KIND	DATE	APPLICATION NO. DATE
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WO 2001039777 A1 20010607 WO 2000-US32702 20001201
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EP 1246623 A1 20021009 EP 2000-988011 20001201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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US 1999-454074 A 19991202
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US 1999-454254 A 19991202
WO 2000-US32702W 20001201

OS MARPAT 135:46190
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AB The synthesis of compds. I, their binding to adenosine receptors and use are described [wherein; R1, R2 = H, (un)substituted alkyl or NR1R2 = (un)substituted 4-8 membered ring; R3 = (un)substituted 4-6 membered (aromatic) ring; R4, R5 = H, (un)substituted alkyl, aryl (with some exceptions)]. Over 100 examples are provided. Intermediate 4-chloro-7H-pyrrolo[2,3-d]pyrimidines were prepared by several routes from appropriately substituted cyano-pyrroles. Thus, 4-chloro-2-(4-pyridyl)-7H-pyrrolo[2,3-d]pyrimidine hydrochloride was reacted with D-prolinol (2.3 mol equiv) in DMSO at 120°C for 18 h to yield III in 13% yield after purification Compound I [R1 = AcNHCH₂CH₂; R2 = H; R3 = Ph; R4, R5 = Me; II] exhibited selective binding to adenosine receptor A1 with IC₅₀ = 82.8 nM. Compound II also had Ki = 9.8 nM (vs. Ki = 7.1 for control ligand 8-cyclopentyl-1,3-dipropylxanthine (DPCPX)). Pyrimidine III binds 5 times more selectively to adenosine receptor A2a than A1, A2b or A3 (no data). Compound I [R1 = AcNH(CH₂)₄; R2 = H; R3 = Ph; R4, R5 = Me] is 10 times more selective for A3 than the other receptor subtypes. ClogP (calculated partition coefficient between octanol and H₂O) values were determined for selected

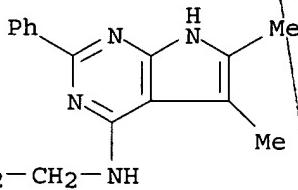
example compds. Claimed uses of I includes administration of a systemic formulation (i.e. ophthalmic) for the treatment of a disease associated with A1, A2a, and A3 adenosine receptors in a subject.

IT 246855-42-5P 251946-07-3P 251946-08-4P
251946-09-5P 251946-37-9P 251946-38-0P
251946-39-1P 251946-40-4P 251946-41-5P
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343632-78-0P 343632-79-1P 343632-80-4P
343632-81-5P 343632-82-6P 343632-83-7P
343633-16-9P 343969-97-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and use of substituted 7H-pyrrolo[2,3-b]pyrimidines as selective adenosine A1, A2a and A3 receptor antagonists)

RN 246855-42-5 CAPLUS

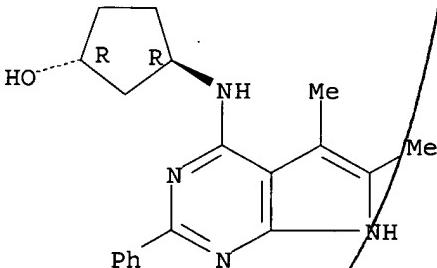
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



RN 251946-07-3 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3R)-rel- (9CI) (CA INDEX NAME)

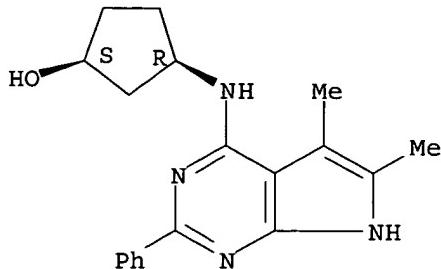
Relative stereochemistry.



RN 251946-08-4 CAPLUS

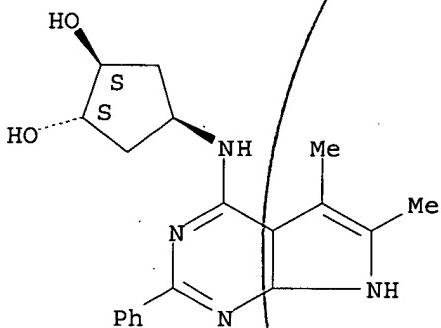
CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

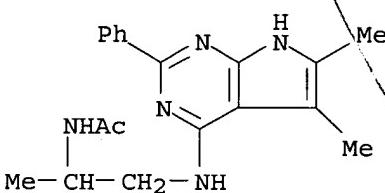


RN 251946-09-5 CAPLUS
 CN 1,2-Cyclopentanediol, 4-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, stereoisomer (9CI) (CA INDEX NAME)

Relative stereochemistry.

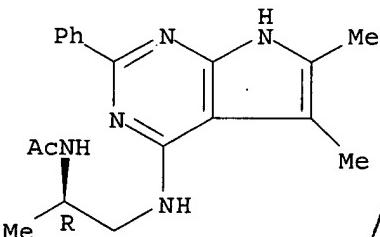


RN 251946-37-9 CAPLUS
 CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)



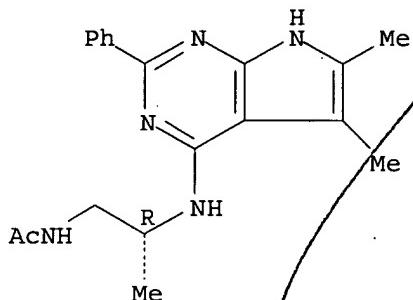
RN 251946-38-0 CAPLUS
 CN Acetamide, N-[(1R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



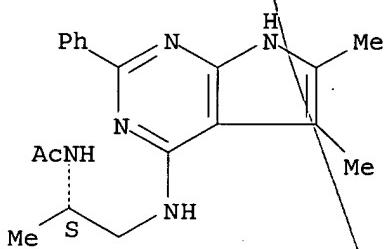
RN 251946-39-1 CAPLUS
CN Acetamide, N-[(2R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



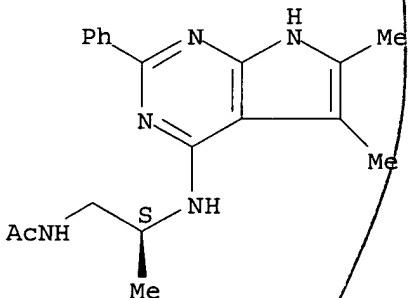
RN 251946-40-4 CAPLUS
CN Acetamide, N-[(1S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

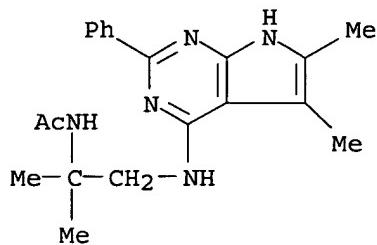


RN 251946-41-5 CAPLUS
CN Acetamide, N-[(2S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

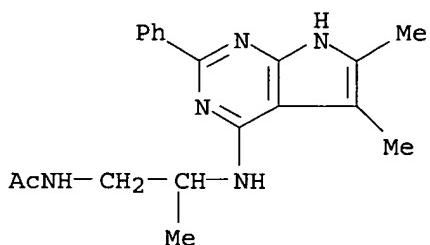


RN 251946-45-9 CAPLUS
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1,1-dimethylethyl]- (9CI) (CA INDEX NAME)



RN 251946-46-0 CAPLUS

CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)



RN 251946-52-8 CAPLUS

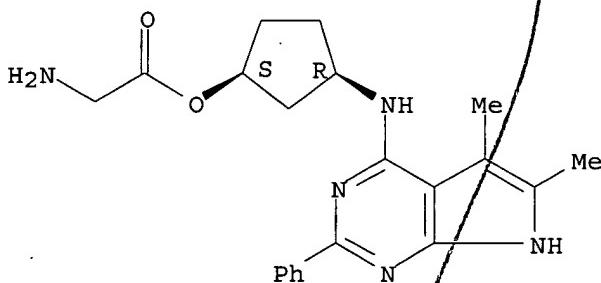
CN Glycine, (1R,3S)-3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester, rel-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 251946-51-7

CMF C21 H25 N5 O2

Relative stereochemistry.

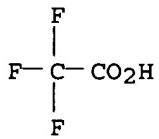


CM 2

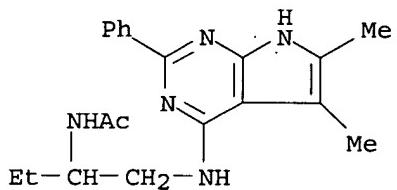
CRN 76-05-1

CMF C2 H F3 O2

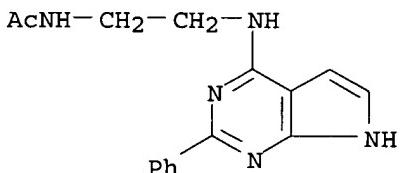
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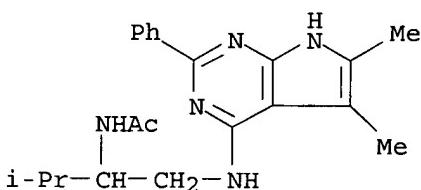
RN 251946-55-1 CAPLUS
 CN Acetamide, N-[1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]propyl - (9CI) (CA INDEX NAME)



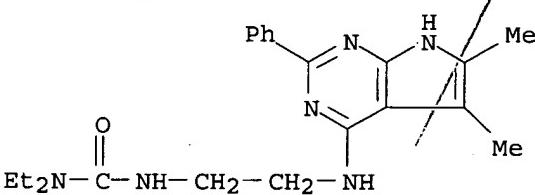
RN 343632-20-2 CAPLUS
 CN Acetamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl] - (9CI) (CA INDEX NAME)



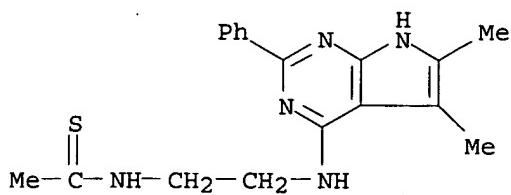
RN 343632-31-5 CAPLUS
 CN Acetamide, N-[1-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]-2-methylpropyl - (9CI) (CA INDEX NAME)



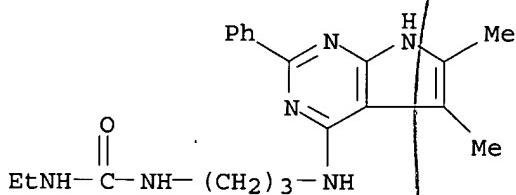
RN 343632-32-6 CAPLUS
 CN Urea, N'-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]-N,N-diethyl - (9CI) (CA INDEX NAME)



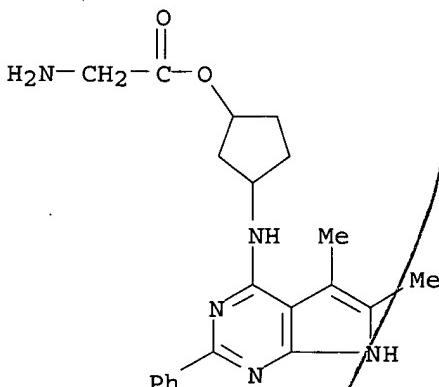
RN 343632-33-7 CAPLUS
CN Ethanethioamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



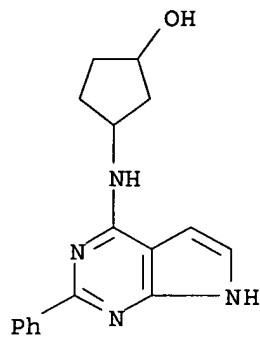
RN 343632-35-9 CAPLUS
CN Urea, N-[3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]-N'-ethyl- (9CI) (CA INDEX NAME)



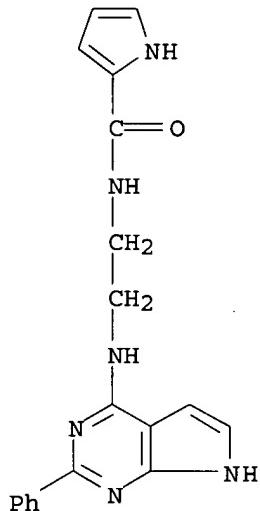
RN 343632-36-0 CAPLUS
CN Glycine, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester (9CI) (CA INDEX NAME)



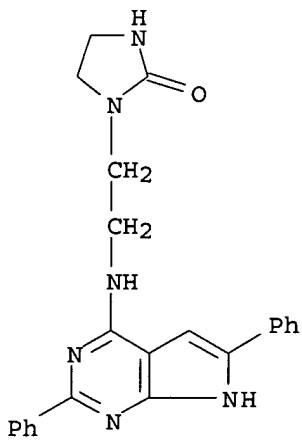
RN 343632-37-1 CAPLUS
CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]- (9CI) (CA INDEX NAME)



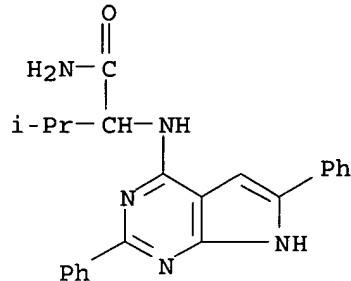
RN 343632-38-2 CAPLUS
CN 1H-Pyrrole-2-carboxamide, N-[2-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



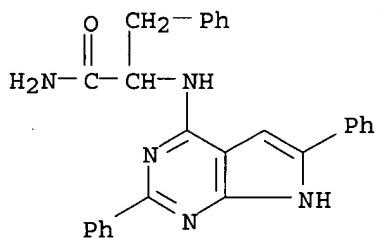
RN 343632-39-3 CAPLUS
CN 2-Imidazolidinone, 1-[2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



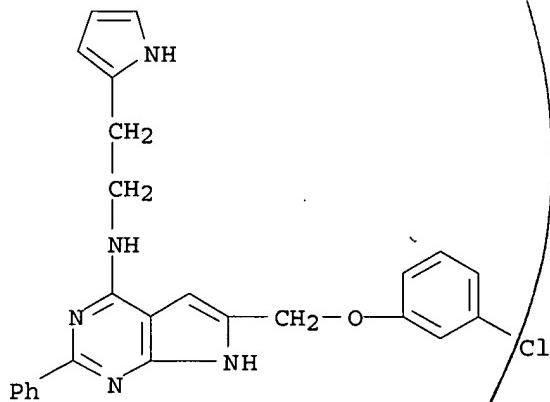
RN 343632-40-6 CAPLUS
CN Butanamide, 2-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-3-methyl- (9CI) (CA INDEX NAME)



RN 343632-41-7 CAPLUS
CN Benzenepropanamide, α -[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]- (9CI) (CA INDEX NAME)

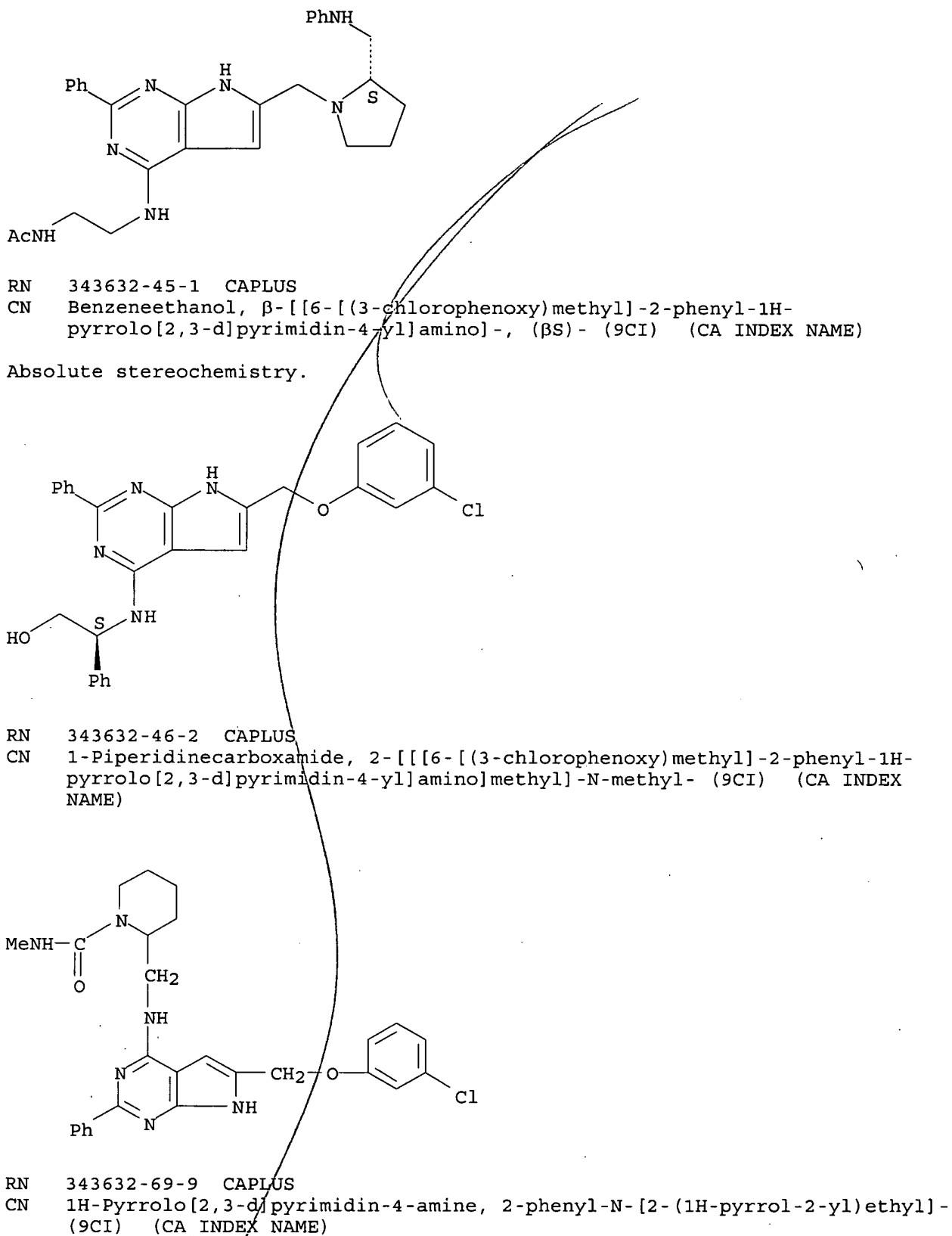


RN 343632-43-9 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 6-[(3-chlorophenoxy)methyl]-2-phenyl-N-[2-(1H-pyrrol-2-yl)ethyl]- (9CI) (CA INDEX NAME)

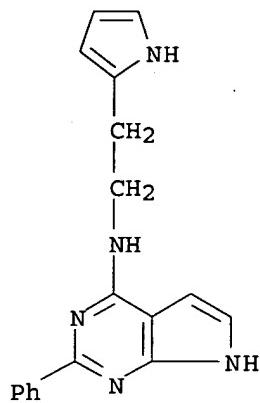


RN 343632-44-0 CAPLUS
CN Acetamide, N-[2-[(2-phenyl-6-[(2S)-2-[(phenylamino)methyl]-1-pyrrolidinyl]methyl]-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



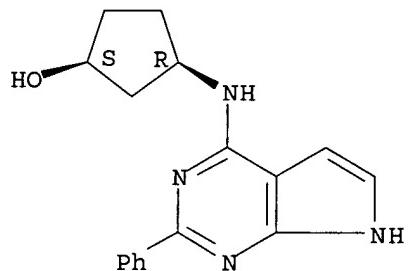
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RN 343632-77-9 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1S,3R)- (9CI) (CA INDEX NAME)

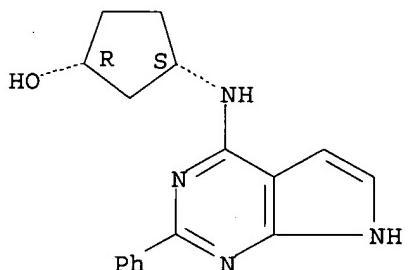
Absolute stereochemistry.



RN 343632-78-0 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S)- (9CI) (CA INDEX NAME)

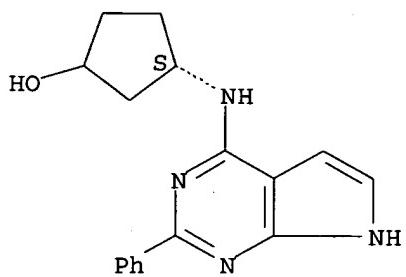
Absolute stereochemistry.



RN 343632-79-1 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (3S)- (9CI) (CA INDEX NAME)

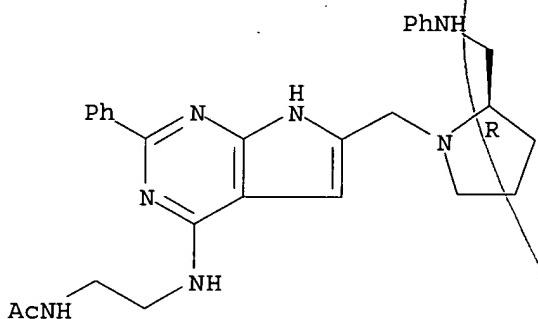
Absolute stereochemistry.



RN 343632-80-4 CAPLUS

CN Acetamide, N-[2-[(2-phenyl-6-[(2R)-2-[(phenylamino)methyl]-1-pyrrolidinyl]methyl]-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]ethyl- (9CI)
(CA INDEX NAME)

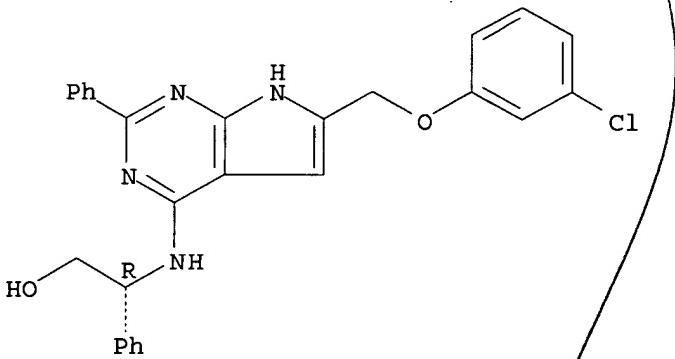
Absolute stereochemistry.



RN 343632-81-5 CAPLUS

CN Benzeneethanol, β -[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]-, (β R)- (9CI) (CA INDEX NAME)

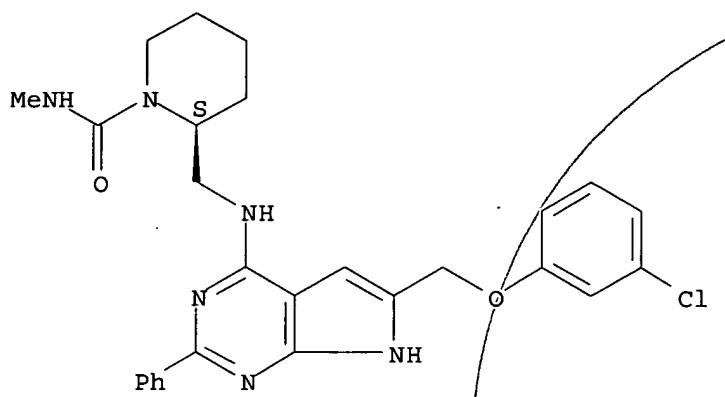
Absolute stereochemistry.



RN 343632-82-6 CAPLUS

CN 1-Piperidinecarboxamide, 2-[(6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl-N-methyl-, (2S)- (9CI) (CA INDEX NAME)

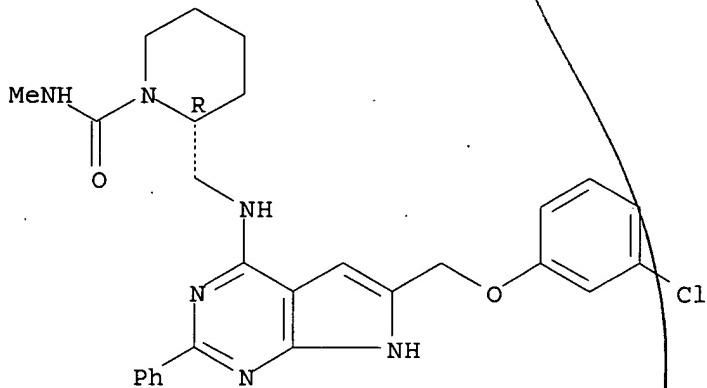
Absolute stereochemistry.



RN 343632-83-7 CAPLUS

CN 1-Piperidinecarboxamide, 2-[[[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]amino]methyl]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

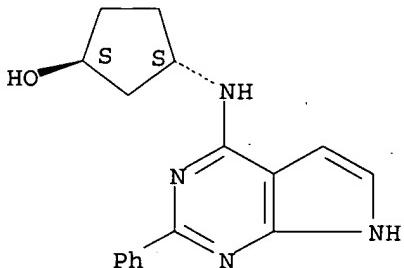
Absolute stereochemistry.



RN 343633-16-9 CAPLUS

CN Cyclopentanol, 3-[(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1S,3S)- (9CI) (CA INDEX NAME)

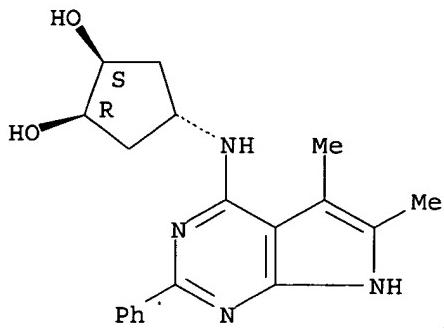
Absolute stereochemistry.



RN 343969-97-1 CAPLUS

CN 1,2-Cyclopentanediol, 4-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1 α ,2 α ,4 β)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:783937 CAPLUS
DN 132:22973
TI Preparation of pyrrolo[2,3-d]pyrimidines as adenosine receptor antagonists
IN Castelhano, Arlindo L.; McKibben, Bryan; Witter, David J.
PA Cadus Pharmaceutical Corp., USA
SO PCT Int. Appl., 169 pp.
CODEN: PIXXD2

DT Patent
LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9962518	A1	19991209	WO 1999-US12135	19990601
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG	US 1998-87702P P 19980602 US 1999-123216PP 19990308 US 1999-126527PP 19990326
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CA 2334200		AA	19991209	US 1998-87702P P 19980602 US 1999-123216PP 19990308 US 1999-126527PP 19990326	
AU 9942265		A1	19991220	WO 1999-US12135W 19990601	
AU 763658		B2	20030731	AU 1999-42265 19990601	
BR 9911612		A	20010206	US 1998-87702P P 19980602 US 1999-123216PP 19990308 US 1999-126527PP 19990326 WO 1999-US12135W 19990601	
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EP 1082120	A1	20010314	EP 1999-926107	19990601
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JP 2002516861	T2	20020611	JP 2000-551774	19990601
			US 1998-87702P P 19980602 US 1999-123216PP 19990308 US 1999-126527PP 19990326 WO 1999-US12135W 19990601	
US 6686366			US 1999-454075 19991202 US 1998-87702P P 19980602 US 1999-123216PP 19990308 US 1999-126527PP 19990326 WO 1999-US12135A2 19990601	
NO 2000006090	A	20010131	NO 2000-6090 20001130 US 1998-87702P P 19980602 US 1999-123216PP 19990308 US 1999-126527PP 19990326 WO 1999-US12135W 19990601	
US 2002028782	A1	20020307	US 2000-728229 20001201 US 1998-87702P P 19980602 US 1999-123216PP 19990308 US 1999-126527PP 19990326 WO 1999-US12135A1 19990601	

PATENT FAMILY INFORMATION:

FAN 2001:416773

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001039777	A1	20010607	WO 2000-US32702	20001201
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
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	US 6686366	B1	20040203	US 1999-454074 A 19991202 US 1999-454075 A 19991202 US 1999-454254 A 19991202 US 1999-454075 19991202 US 1998-87702P P 19980602 US 1999-123216PP 19990308 US 1999-126527PP 19990326 WO 1999-US12135A2 19990601	
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JP 2003519102	T2	20030617	US 1999-454074 A 19991202 US 1999-454075 A 19991202 US 1999-454254 A 19991202 WO 2000-US32702W 20001201 JP 2001-541509 20001201 US 1999-454074 A 19991202 US 1999-454075 A 19991202 US 1999-454254 A 19991202 WO 2000-US32702W 20001201		

FAN 2004:88297

PATENT NO.

KIND DATE

APPLICATION NO. DATE

PI US 6686366

B1 20040203

US 1999-454075 19991202
 US 1998-87702P P 19980602
 US 1999-123216PP 19990308
 US 1999-126527PP 19990326
 WO 1999-US12135A2 19990601

WO 9962518 A1 19991209

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US 1998-87702P P 19980602
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 US 1999-126527PP 19990326

WO 2001039777 A1 20010607

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 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 1999-454074 A 19991202
 US 1999-454075 A 19991202
 US 1999-454254 A 19991202

EP 1246623 A1 20021009

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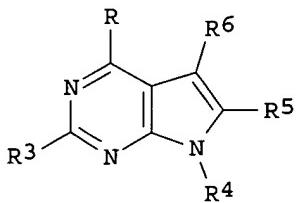
US 1999-454074 A 19991202
 US 1999-454075 A 19991202
 US 1999-454254 A 19991202

JP 2003519102 T2 20030617

WO 2000-988011 20001201
 EP 2000-US32702W 20001201
 JP 2001-541509 20001201
 US 1999-454074 A 19991202
 US 1999-454075 A 19991202
 US 1999-454254 A 19991202
 WO 2000-US32702W 20001201

OS MARPAT 132:22973

GI



AB Title compds. [I; R = NR1R2; R1-R4 = H, alkyl, aryl, etc.; NR1R2 =

10/035753

heterocyclyl; R5,R6 = H, halo, alkyl, aryl, etc.; R4R5,R5R6 = atoms to complete a ring] were prepared. Thus, 2-amino-3-cyano-4,5-dimethyl-1-(1-phenylethyl)pyrrole was N-benzoylated and the product cyclized to give, after deprotection and chlorination, I (R3 = Ph, R4 = H, R5 = R6 = Me) (II; R = Cl) which was aminated by trans-4-hydroxycyclohexylamine to give II (R = trans-4-hydroxycyclohexylamino). Data for biol. activity of I were given.

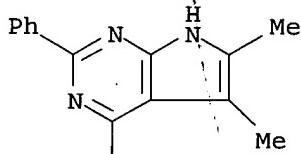
IT 246855-42-5P 251946-07-3P 251946-08-4P
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 251946-39-1P 251946-40-4P 251946-41-5P
 251946-45-9P 251946-46-0P 251946-52-8P
 251946-55-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrrolo[2,3-d]pyrimidines as adenosine receptor antagonists)

RN 246855-42-5 CAPLUS

CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)aminoethyl]- (9CI) (CA INDEX NAME)

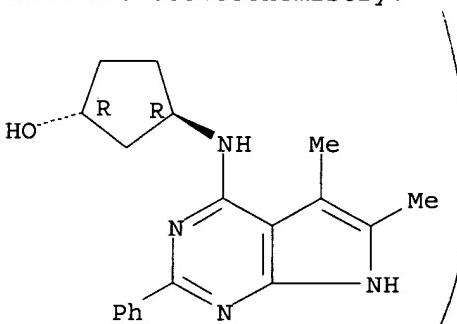


AcNH-CH₂-CH₂-NH

RN 251946-07-3 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3R)-rel- (9CI) (CA INDEX NAME)

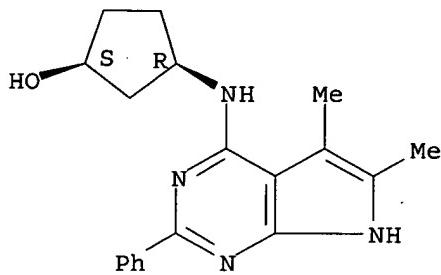
Relative stereochemistry.



RN 251946-08-4 CAPLUS

CN Cyclopentanol, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, (1R,3S)-rel- (9CI) (CA INDEX NAME)

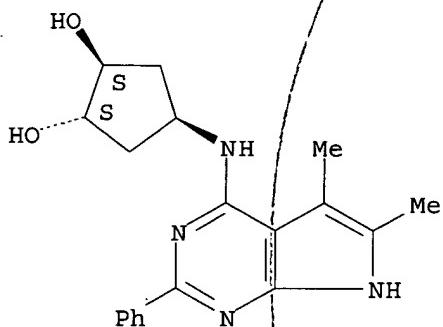
Relative stereochemistry.



RN 251946-09-5 CAPLUS

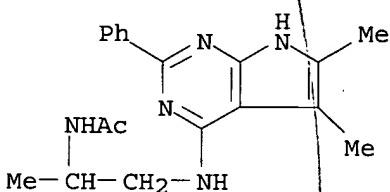
CN 1,2-Cyclopentanediol, 4-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-, stereoisomer (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 251946-37-9 CAPLUS

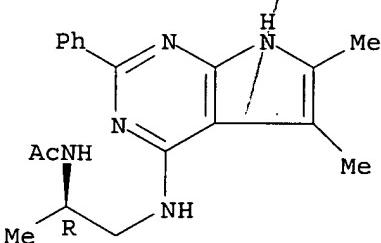
CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)



RN 251946-38-0 CAPLUS

CN Acetamide, N-[(1R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

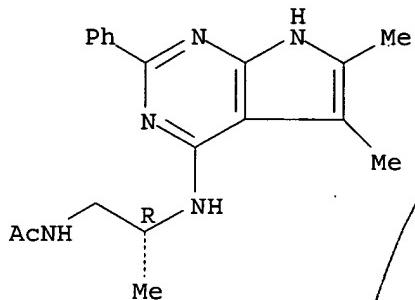
Absolute stereochemistry.



RN 251946-39-1 CAPLUS

CN Acetamide, N-[(2R)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)aminolpropyl]- (9CI) (CA INDEX NAME)

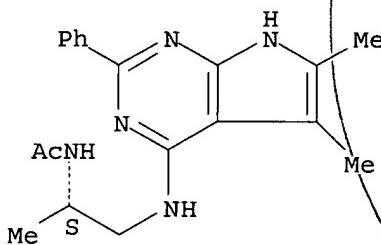
Absolute stereochemistry.



RN 251946-40-4 CAPLUS

CN Acetamide, N-[(1S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1-methylethyl]- (9CI) (CA INDEX NAME)

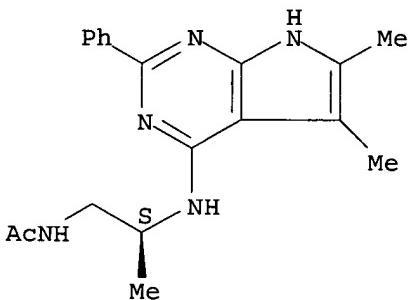
Absolute stereochemistry.



RN 251946-41-5 CAPLUS

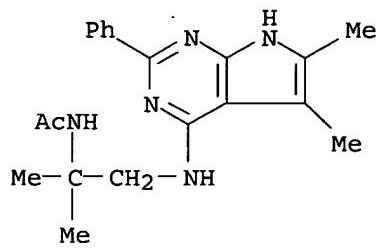
CN Acetamide, N-[(2S)-2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



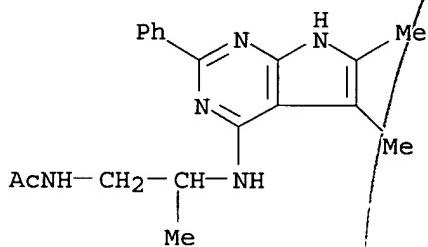
RN 251946-45-9 CAPLUS

CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-1,1-dimethylethyl]- (9CI) (CA INDEX NAME)



RN 251946-46-0 CAPLUS

CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]propyl]- (9CI) (CA INDEX NAME)



RN 251946-52-8 CAPLUS

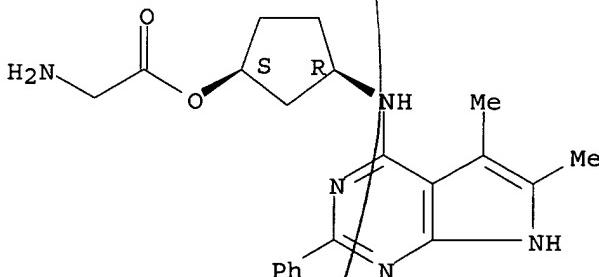
CN Glycine, (1R,3S)-3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]cyclopentyl ester, rel-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 251946-51-7

CMF C21 H25 N5 O2

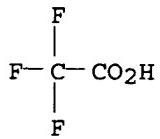
Relative stereochemistry.



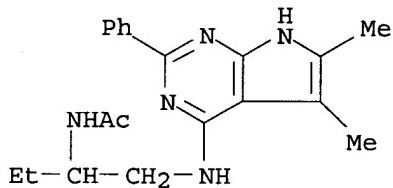
CM 2

CRN 76-05-1

CMF C2 H F3 O2

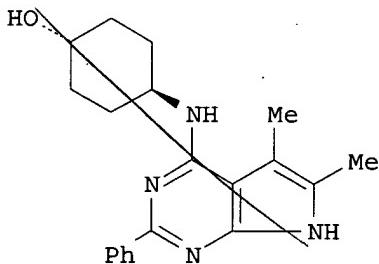


RN 251946-55-1 CAPLUS
 CN Acetamide, N-[1-[[[5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]methyl]propyl]- (9CI) (CA INDEX NAME)



RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1999:571295 CAPLUS
 DN 131:281026
 TI Selective A1-adenosine receptor antagonists identified using yeast Saccharomyces cerevisiae functional assays
 AU Campbell, Robert M.; Cartwright, Craig; Chen, Wei; Chen, Yong; Duzic, Emir; Fu, Jian-Min; Loveland, Michelle; Manning, Ron; McKibben, Bryan; Pleiman, Christopher M.; Silverman, Lauren; Trueheart, Joshua; Webb, David R.; Wilkinson, Vicki; Witter, David J.; Xie, Xiaobing; Castelhano, Arlindo L.
 CS Cadus Pharmaceutical Corporation, Tarrytown, NY, 10591, USA
 SO Bioorganic & Medicinal Chemistry Letters (1999), 9(16), 2413-2418
 CODEN: BMCLE8; ISSN: 0960-894X
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 GI



AB Evaluation of a biased "library" of pyrrolo[2,3-d]pyrimidines using yeast-based functional assays expressing human A1- and A2a-adenosine receptors, led to the A1 selective antagonist I. A direct correlation

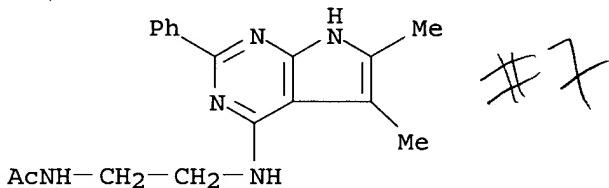
between yeast functional activity and binding data was established.
Practical compds. with polar residues at C-4 of the pyrrolopyrimidine system required H-bond donor functionality for high potency.

IT 246855-42-5P 246855-48-1P
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(selective A₁-adenosine receptor antagonists identified using yeast functional assays)

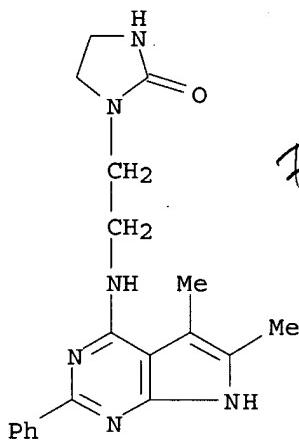
RN 246855-42-5 CAPLUS

CN Acetamide, N-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



RN 246855-48-1 CAPLUS

CN 2-Imidazolidinone, 1-[2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]ethyl]- (9CI) (CA INDEX NAME)



RE.CNT 18

THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT